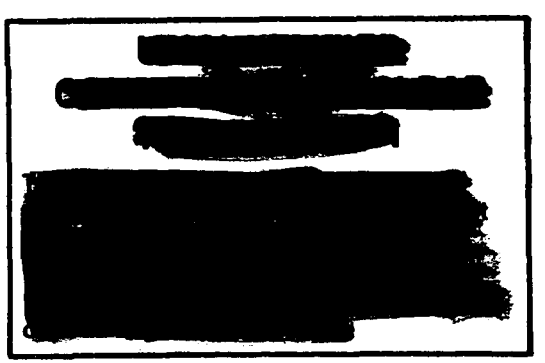
KAISER•HILL
COMPANY

Rocky Flats Environmental Technology Site
Golden, Colorado

INTEGRATING CONTRACTOR
KAISER-HILL L.L.C.

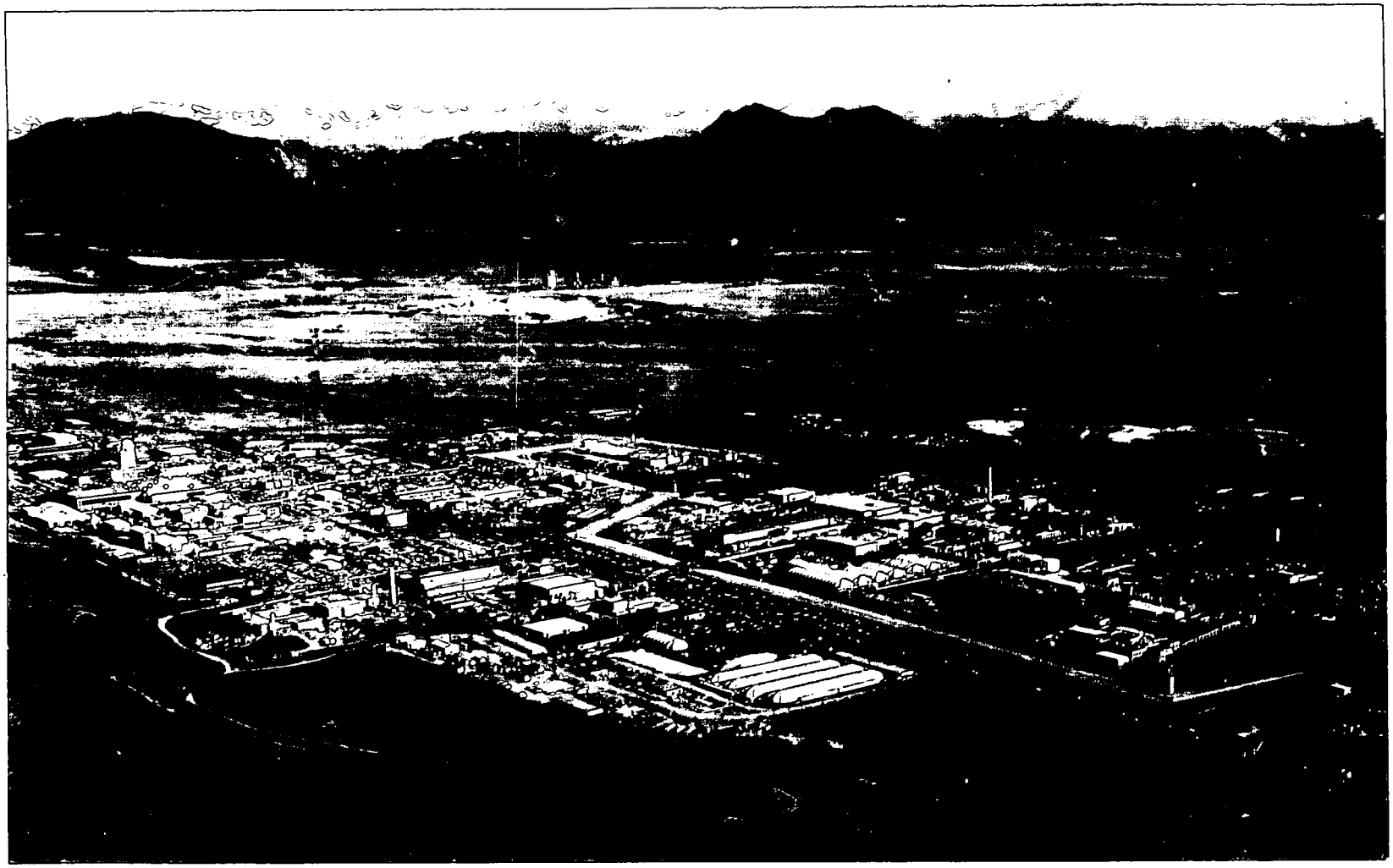


DOES NOT CONTAIN
UNCLASSIFIED CONTROLLED
NUCLEAR INFORMATION

Reviewing Official: S. L. CUNNINGHAM SLC
Name
Date: 4/10/03

Reviewing Official: S. L. CUNNINGHAM
Name
Date: 5/1/96

KAISER•HILL
COMPANY



Rocky Flats Environmental Technology Site
Golden, Colorado
INTEGRATING CONTRACTOR, KAISER-HILL L.L.C.

KAISER•HILL COMPANY

Demolition, Decontamination and Decommissioning (D&D) Projects,

Deactivation Projects,

and Remediation Projects

In-Progress, Planned, or Completed

for the

Rocky Flats Environmental Technology Site

KAISER·HILL COMPANY

CONTENTS

KAISER•HILL COMPANY

Introduction

INTRODUCTION

PURPOSE

This photo briefing book describes completed, planned or on-going Demolition, Decontamination and Decommissioning (D&D) Projects, Deactivation Projects, and Remediation Projects. The photos will attempt to show work before, during and after. All planned D&D work photos will show existing (before). Each section, prior to the photos, will have a brief project purpose; following the purpose are the photos with a caption.

MISSION OF THE KAISER-HILL TEAM AT RFETS

At Rocky Flats, the Kaiser-Hill team will make the site safe and clean it up. We will initiate the conversion of the site for beneficial use in a manner that is environmentally and socially responsible, secure and cost effective.

KAISER·HILL COMPANY

FIGURES

FIGURES (cont.)

FIGURES (cont.)

10

KAISER•HILL
COMPANY

COMPLETED
DEMOLITION, DECONTAMINATED AND
DECOMMISSIONING PROJECTS

KAISER•HILL COMPANY

COLD GLOVEBOX 007 REMOVAL

RM 152, B779

10/94 - 12/94

21

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

To remove Glovebox 007 and utilities piping from Rm 152 to use as a staging area for D&D work in Rm 154, the Hydride Lab.

Figure 1: (before) View of Rm 152 with gloveboxes, conduit and piping.

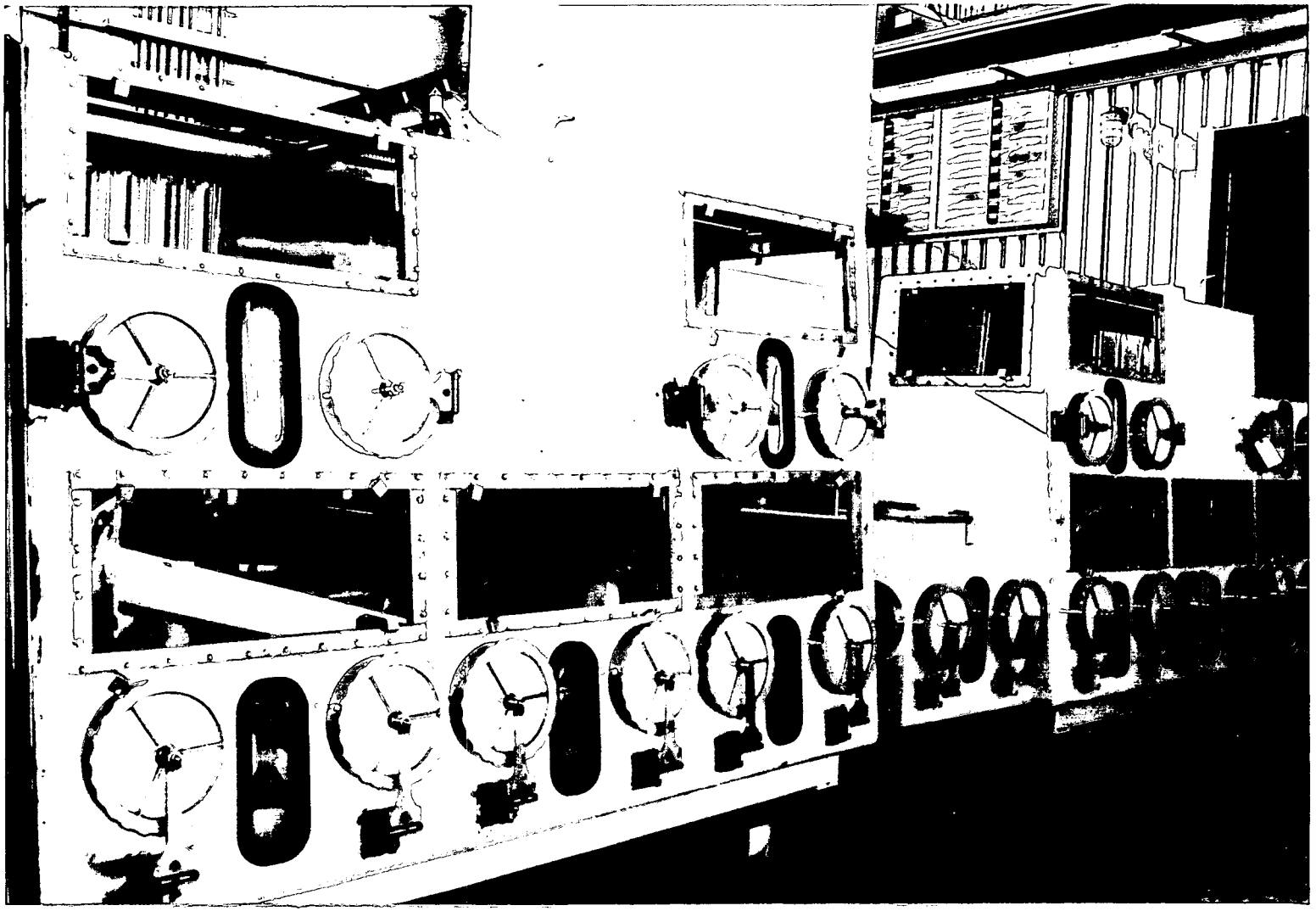


Figure 2: (after) Gloveboxes removed, with legs cut off and cut in sections for removal to outside of building.

DEC 15 1994

Figure 3: (after) Rm 152 after gloveboxes removed, piping deactivated, room walls repainted, and glovebox legs grout removed.

9/

KAISER•HILL COMPANY

SUBSTATION 555/558 DEMOLITION

10/95 - 3/96

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

The purpose of this project is to remove Substation 555/558. The scope includes the removal of Polychlorinated Biphenyl (PCB) contamination at the site, the removal of asbestos material, reconfiguration of electrical power and signal lines, removal of electrical lines and poles, removal of two transformers, removal of equipment inside the substation, and demolition of the building and foundations.

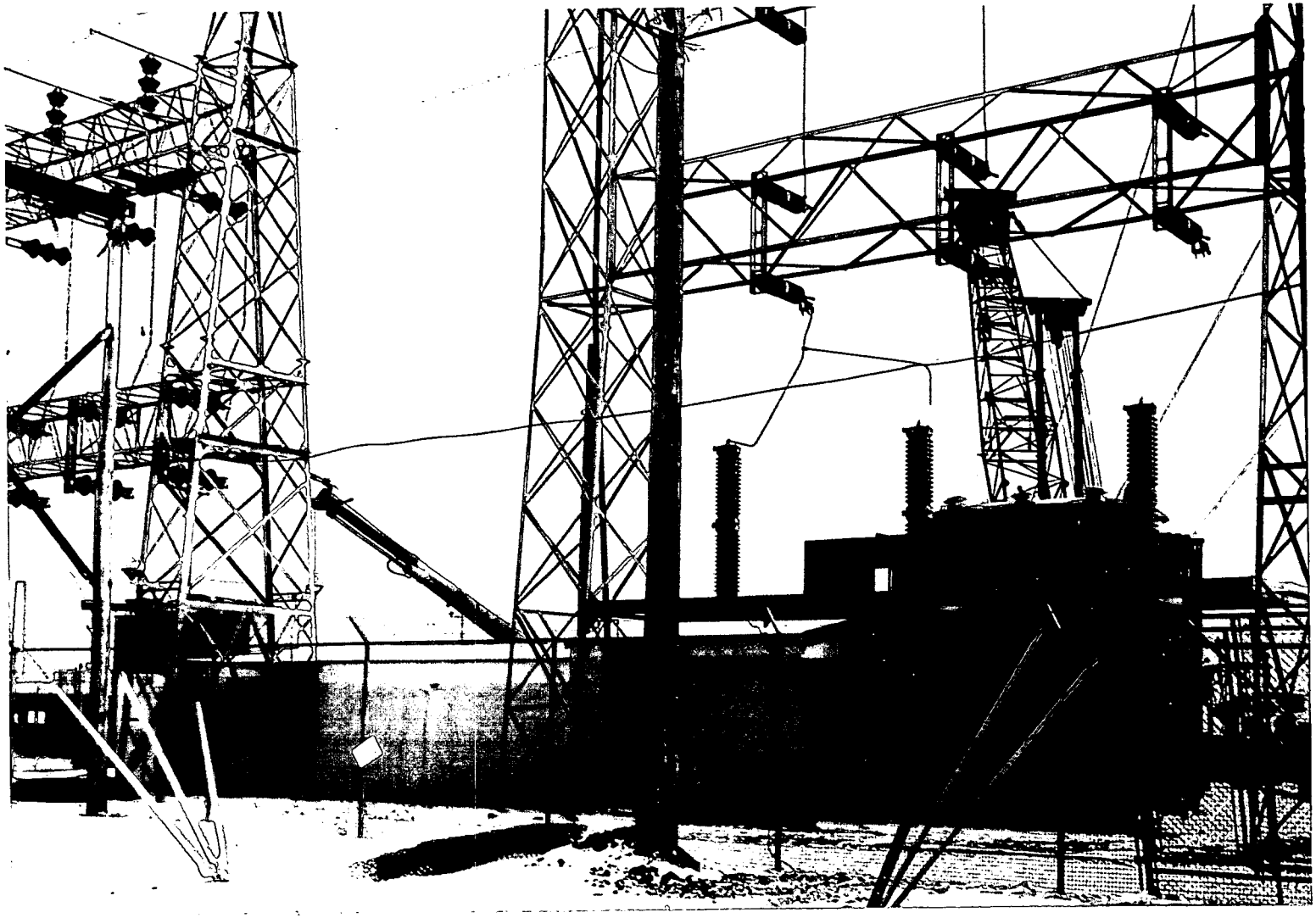


Figure 4: (before) Looking northeast, Substation 555/558 showing Public Service 115KV line, Towers, Transformers and Substation Switch Building.

JAN -4 1996

48369-06

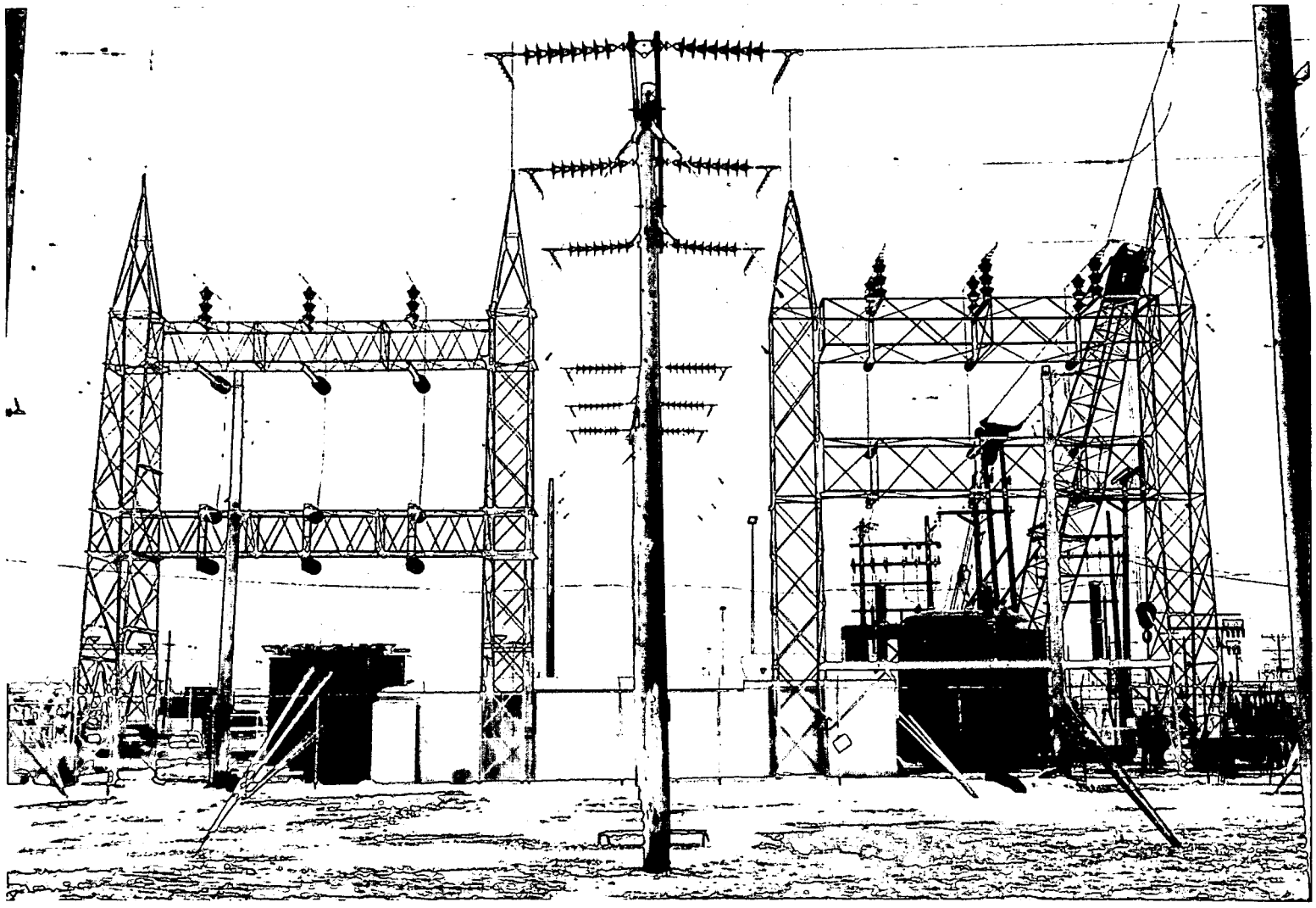


Figure 5: (before) Looking northeast, Substation 555/558 showing Public Service 115KV line, Towers, Transformers and Substation Switch Building.

JAN -4 1996

48369-10

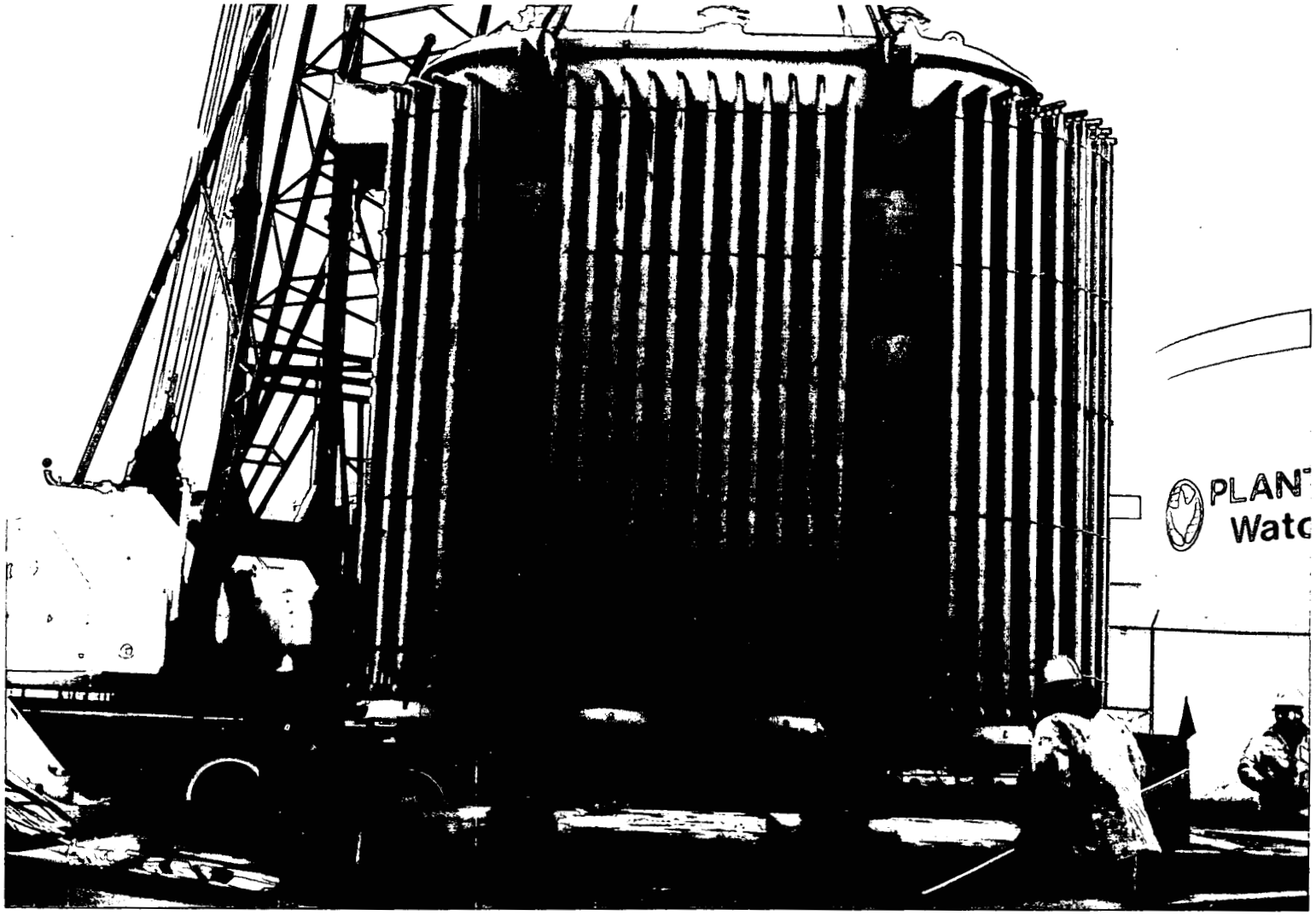


Figure 6: (during) Loading transformer from Substation 555/558 on rail car for shipment off plantsite.

JAN -4 1996

48370-02

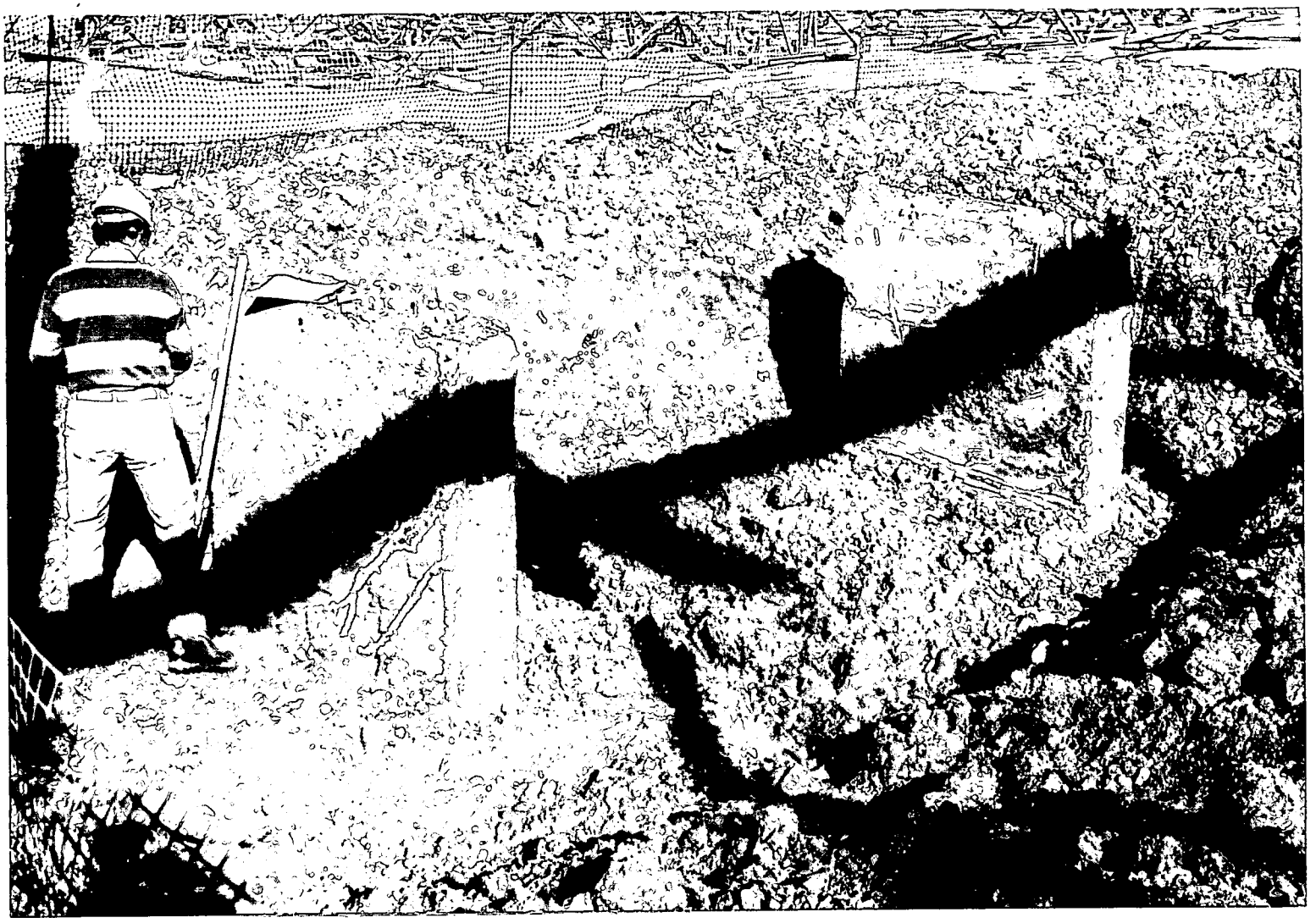


Figure 7: (during) Foundation of 115KV Tower being inspected by Engineering to verify size.

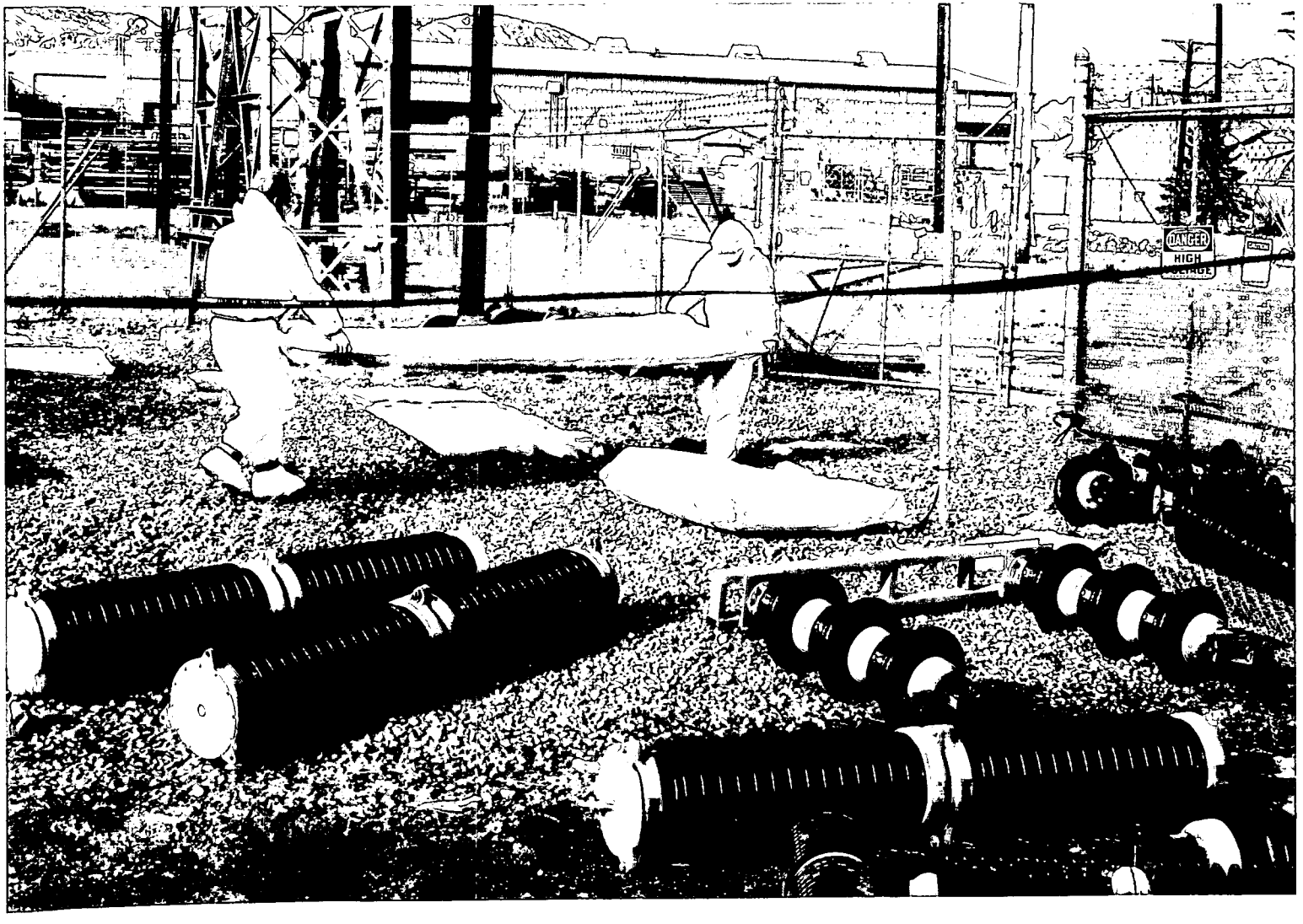


Figure 8: (during) Looking west at Substation 555/558 showing asbestos workers removing transite panels from roof of Switch Building.

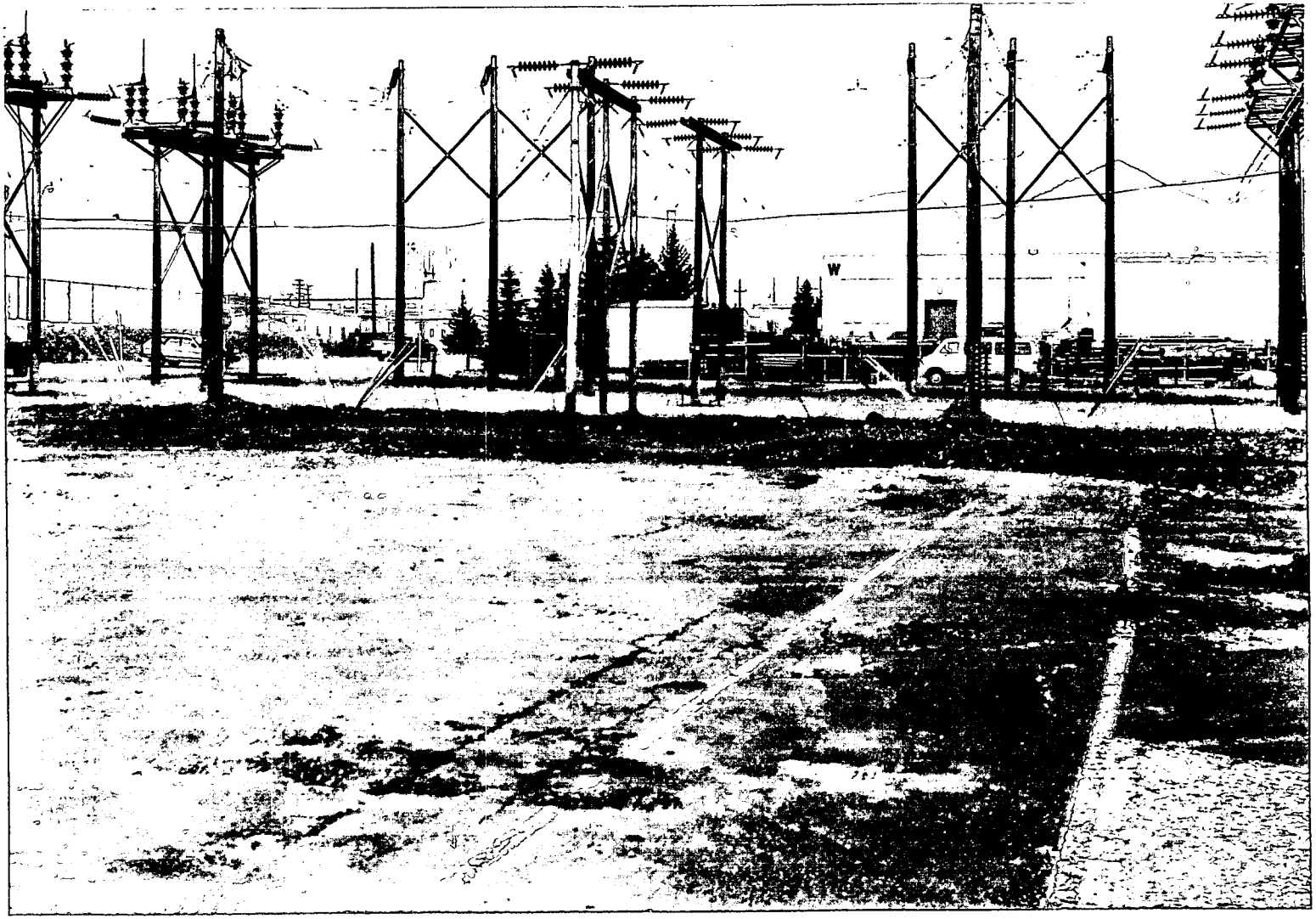


Figure 9: (after) Looking west, completed demolition of Substation 555/558.
(Site will be used for new substation.)

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KAISER·HILL COMPANY

D&D PILOT PROJECT #2,
SECURITY INCINERATOR

December, 1994

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

To decontaminate, remove from site, and recycle all usable materials. Incinerator was used to burn classified documents. Carbon-like paper contained PCBs. Interior of burn box was HEPA vacuumed of all ash. Waste generated consisted only of 160 sq. feet of asbestos transit board which served as a wind shield. All instruments, piping (gas feed -350'), fencing, etc., were diverted to steel recycling program.

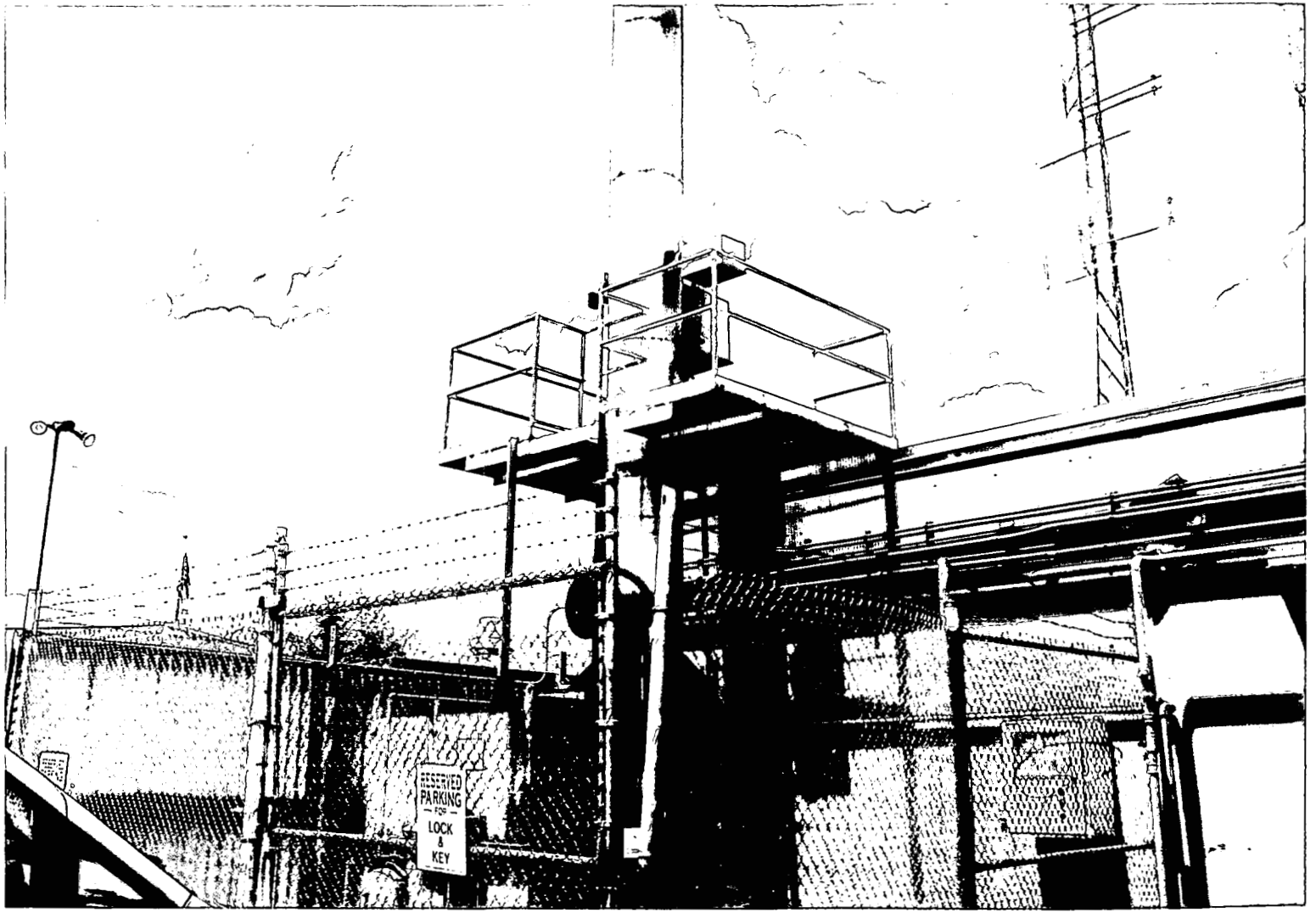

Figure 10: (before) View facing northwest gate. Incinerator and stack were both lined with firebricks. A possible buyer for the incinerator and stack was located prior to demolition.

JUL -6 1994

46373-16

Figure 11: (during) View of worker facing north. Worker in respirator using portable band saw to cut grating free for removal with small crane. Worker is being monitored for lead exposure (from paint).

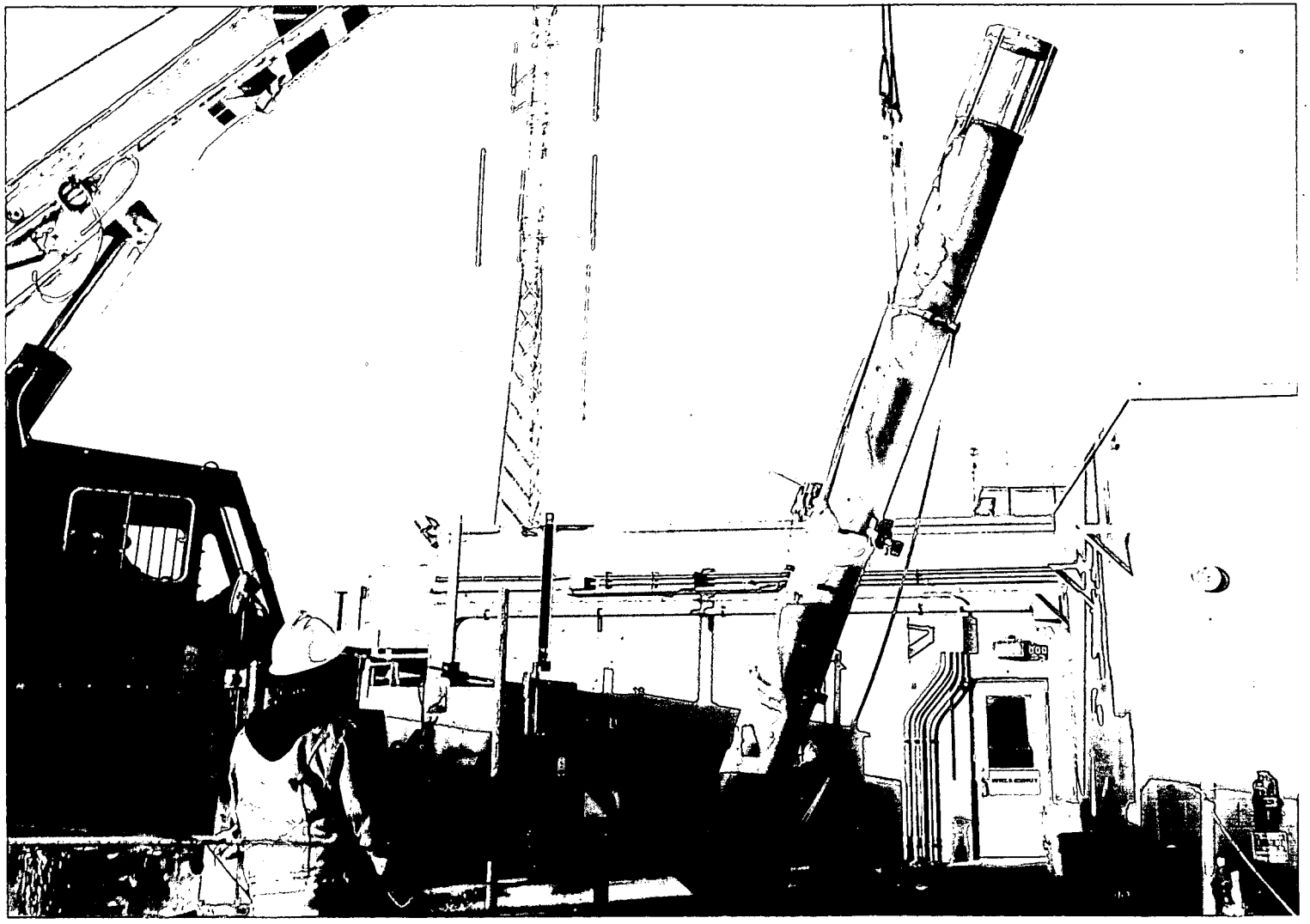

Figure 12: (during) Facing north. Note two sections of grating have been removed. Stack was rigged with portable manlift and supported by crane prior to torch cutting base for removal. Stack weighed approximately 7,000 pounds.

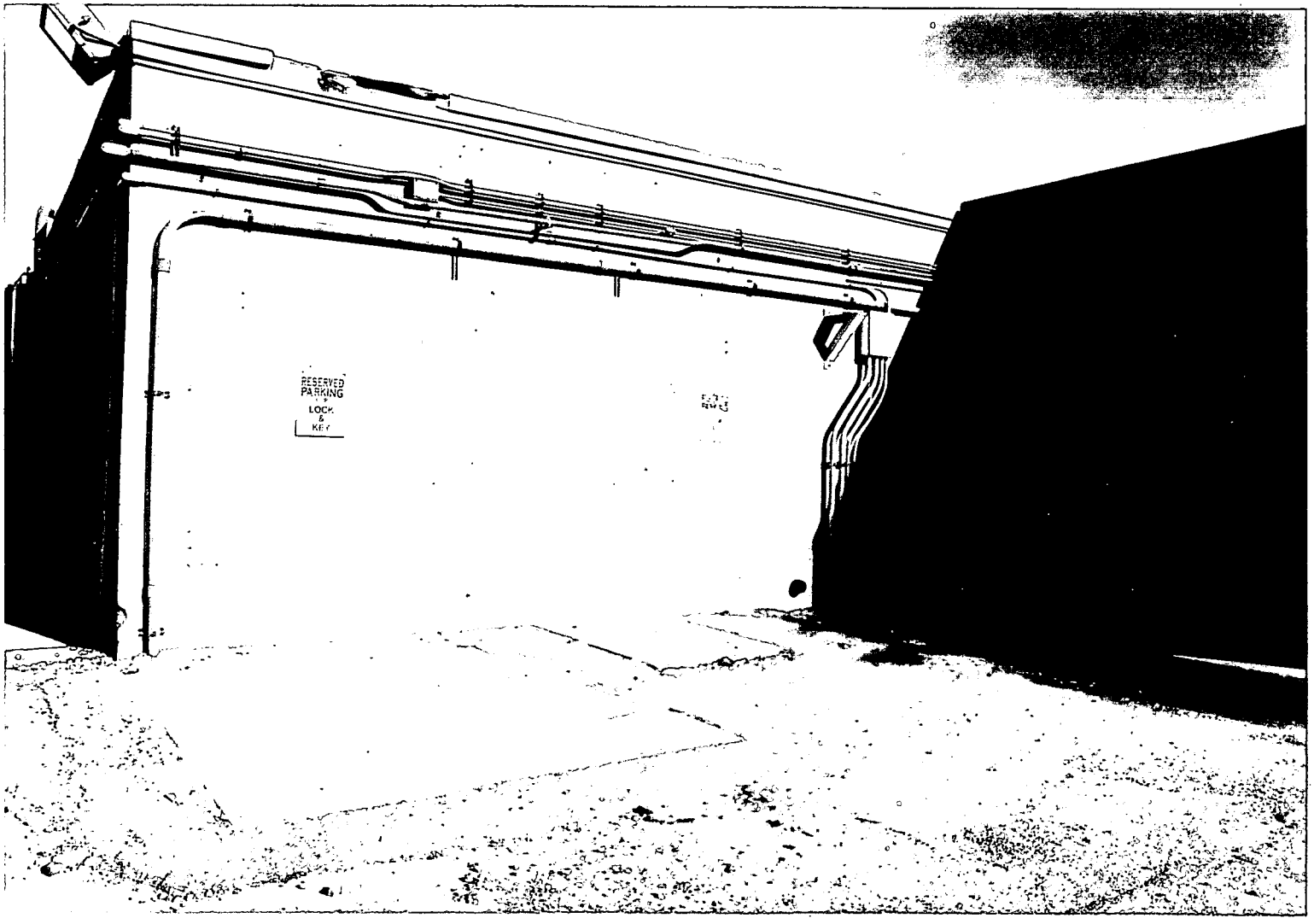

Figure 13: (after) View looking northeast at empty concrete pad.

JAN 18 1995

[illegible] ROCKY FLATS

47328-12

[illegible] RECEIVED
BY [illegible]

30

KAISER•HILL COMPANY

DEMOLITION OF GUARDPOSTS 100, 133, 900

5/95 - 7/95

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

Demolish interior guard posts due to changing mission and security requirements at Rocky Flats.
Scope: Demolition Activities with Engineering support: 1) Asbestos removal at 100/900 - friable and non-friable, 2) Electrical Stripout and Refeed, 3) Building demolitions 100/900 including auto gates, 4) Recycling of steel, copper, bullet proof glass, etc.
Excess equipment removed/prepared for auction.

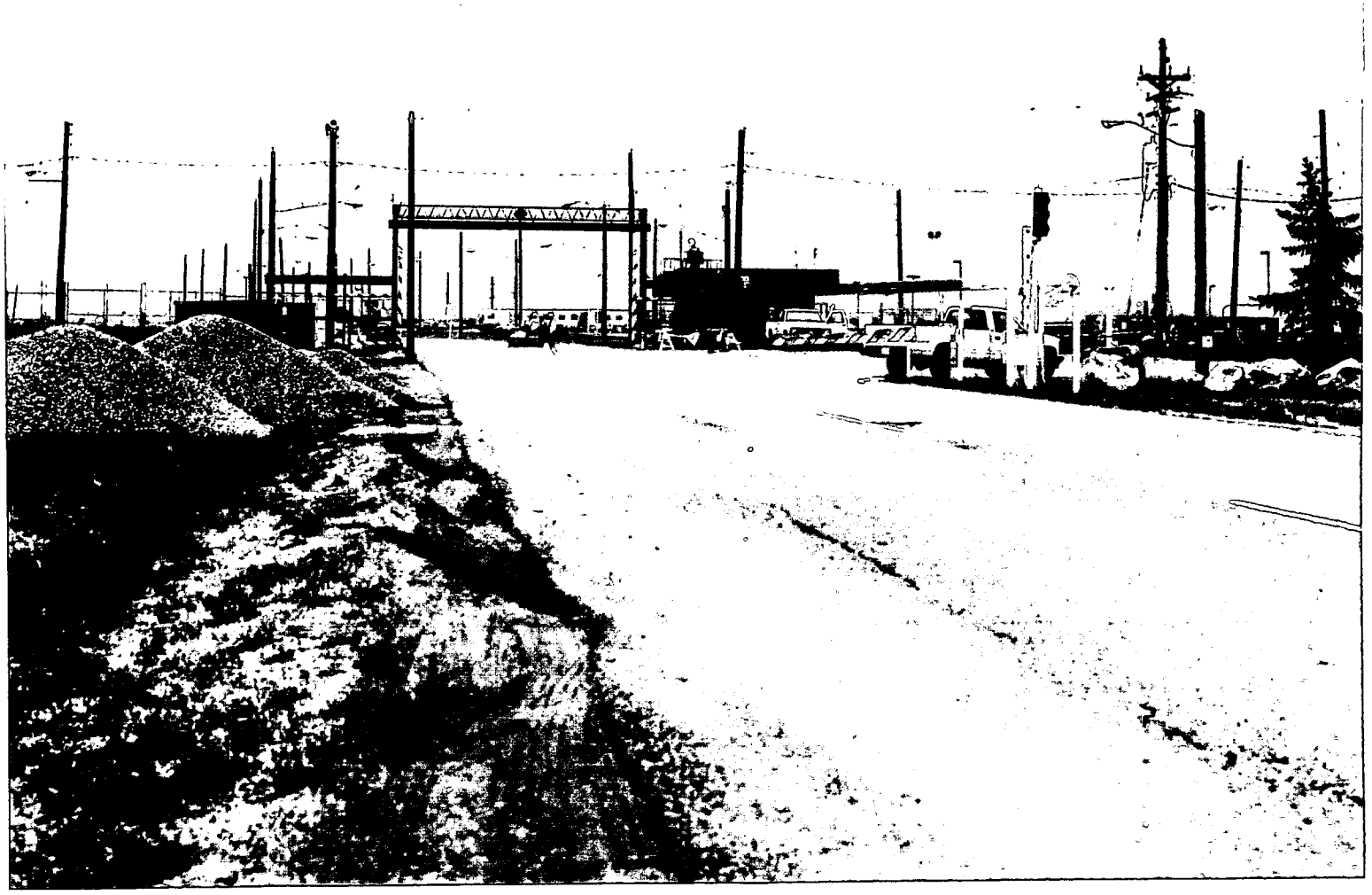

Figure 14: (before) Looking west at Building 100. Painter approaches Guardpost 100 to finish lead paint removal on automatic gate in preparation for torch cutting/removal.
Note: Demolition, cleanup of buildings, gates, etc., occurred from 6/30/95 to 7/1/95.

Figure 15: (before) Looking east at Building 900. Note bullet proof glass against building. Electrical feeds have been locked out tagged out and grounded (grounds visible on left side of photo). Note lineman working from bucket truck behind gate. Personnel in building are removing remaining equipment in preparation for demolition activities beginning June 30, 1995, in afternoon.

Figure 16: (during) Looking west at Guardpost 900. Radiological Control Technician uses instrument ("fiddler") "Field Instrument Detector for Low Energy Radiation," to check soil disturbed from slab excavation (no findings). Komatsu tracked excavator in background.

JUL 13 1995

ROCKY FLATS

47942-06

RECEIVED
BY RUBBER

Figure 17: (during) Pictures taken minutes after Radiological clearance is given. Building is demolished and rubble loaded into 10 yard dump trucks for transport to onsite sanitary landfill. Note: Concrete rubble was recycled as erosion control rip rap on edge of landfill. Metal, structural was separated by excavator and placed into brown container (visible on right) for recycling.

Figure 18: (during) Building is down. Separation and loading of remaining material proceeds.

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KAISER•HILL COMPANY

D&D PILOT PROJECT #1
NaOH TANK REMOVAL
August, 1994

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

To remove two Sodium Hydroxide Tanks (with asbestos insulation) and the related piping.

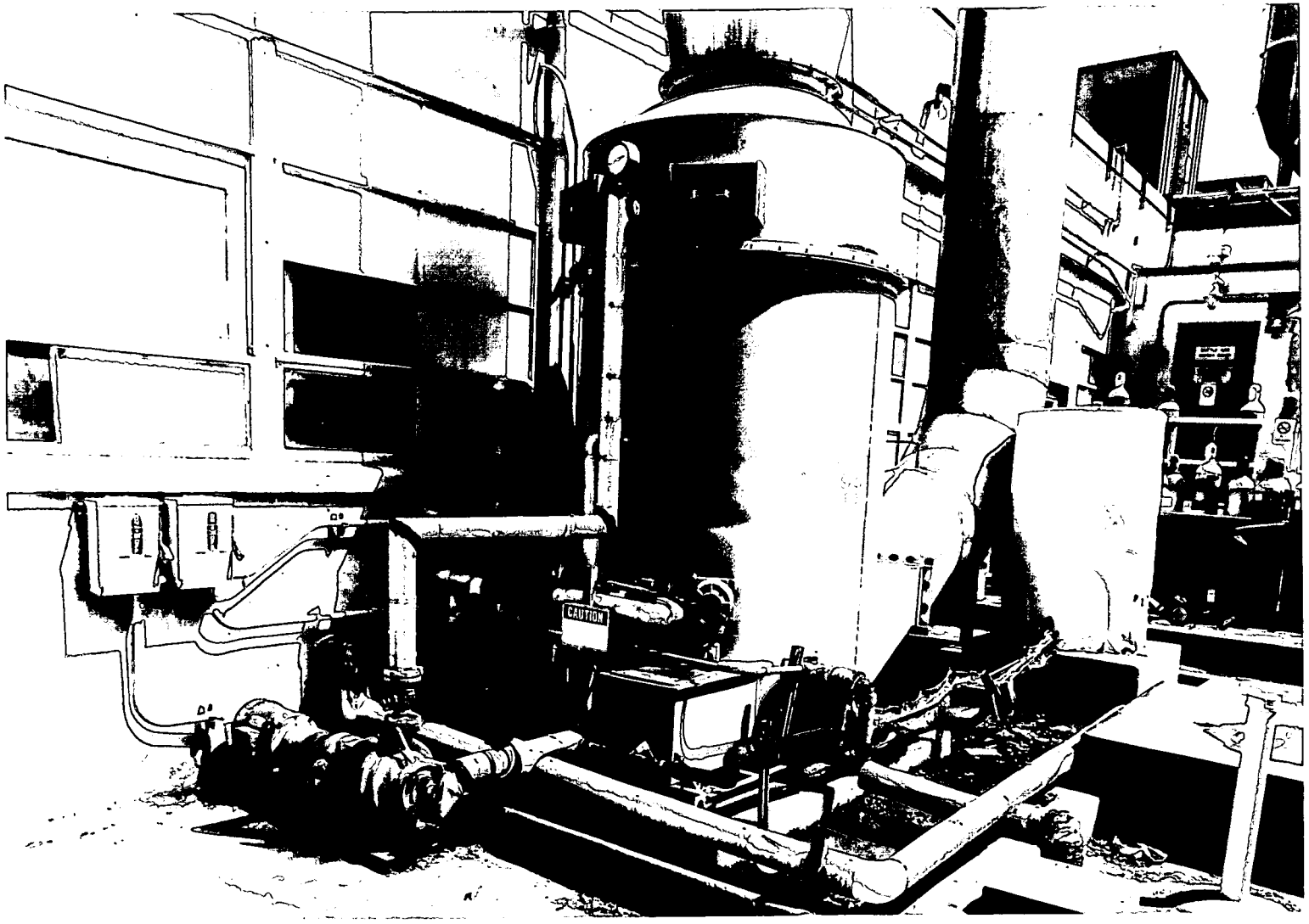

Figure 19: (before) View looking northwest. One tank and piping visible on right. Tanks were verified as "clean" per sampling results. Asbestos on the tanks was encapsulated. One tank was placed inside the other and packed for disposal.

APR 13 1994

ROCKY FLATS

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BY NUMBER

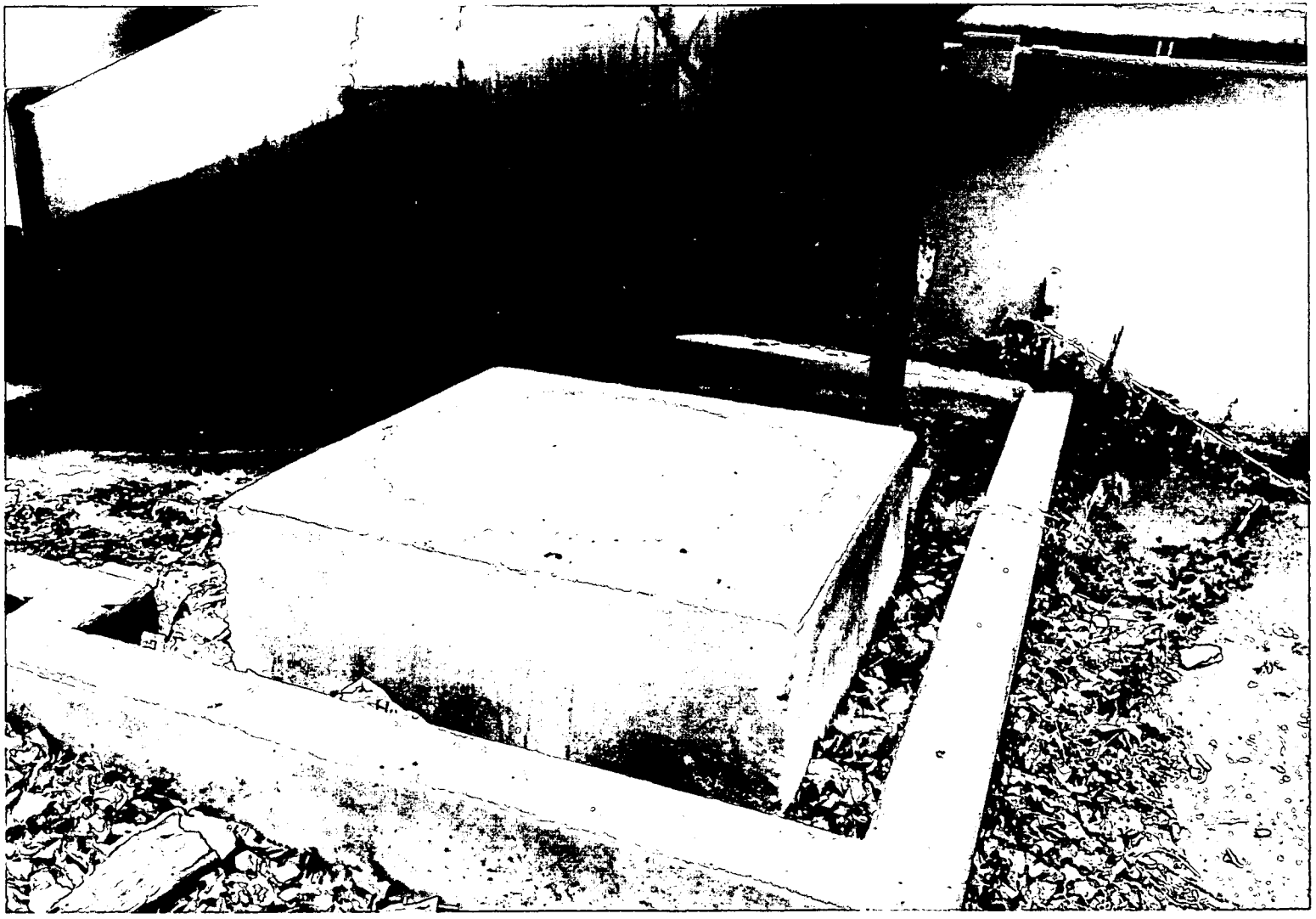

Figure 20: (after) View looking west at tanks pedestal.

ROCKY FLATS

AUG -9 1994

46620-12

BY NUMBER

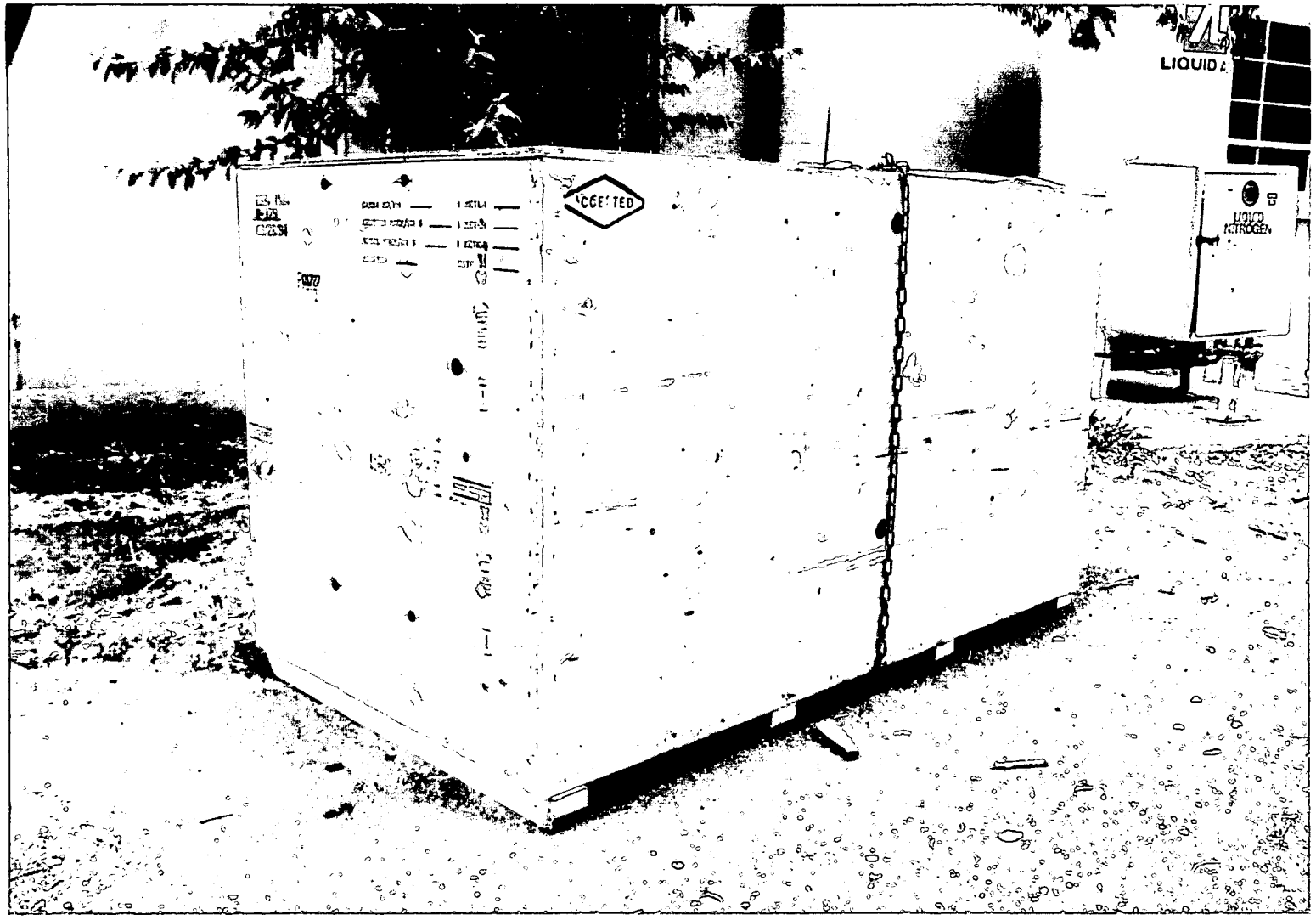

Figure 21: (after) Standard waste crate, 4' X 4' X 8' long, used to dispose of tanks.

AUG -9 1994

U.S. ROCKY FLATS

46620-07

PLEASE RECORD
BY NUMBER

REMEDIATION

43

KAISER·HILL COMPANY

ACCELERATED SLUDGE REMOVAL PROJECT (ASRP)

PONDS 207A, 207B, 207C

2/94 - 9/95

HH

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

This project consists of removing water and toxic sludge from Ponds 207A, 207B, (3) and 207C, which were constructed for treatment and storage of process water from industrial operations. The process water contained treated acidic wastes, industrial liquid wastes (e.g., metal plating solutions), and low level radioactive wastes.

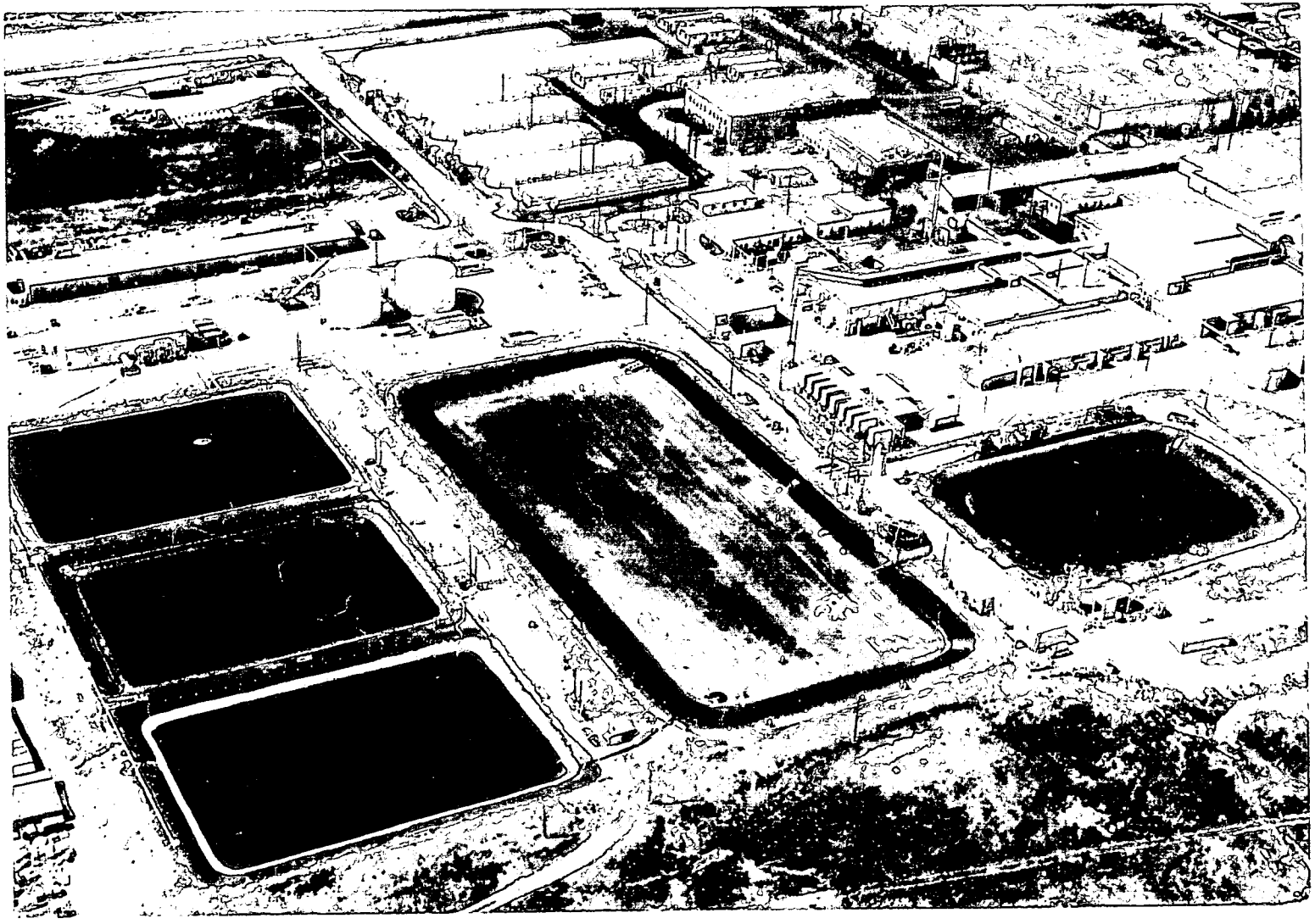

Figure 22: (before) Aerial view of the five ponds; 207A in middle, to the left (east), 207B (north, center, south), to the right (west), Pond 207C.

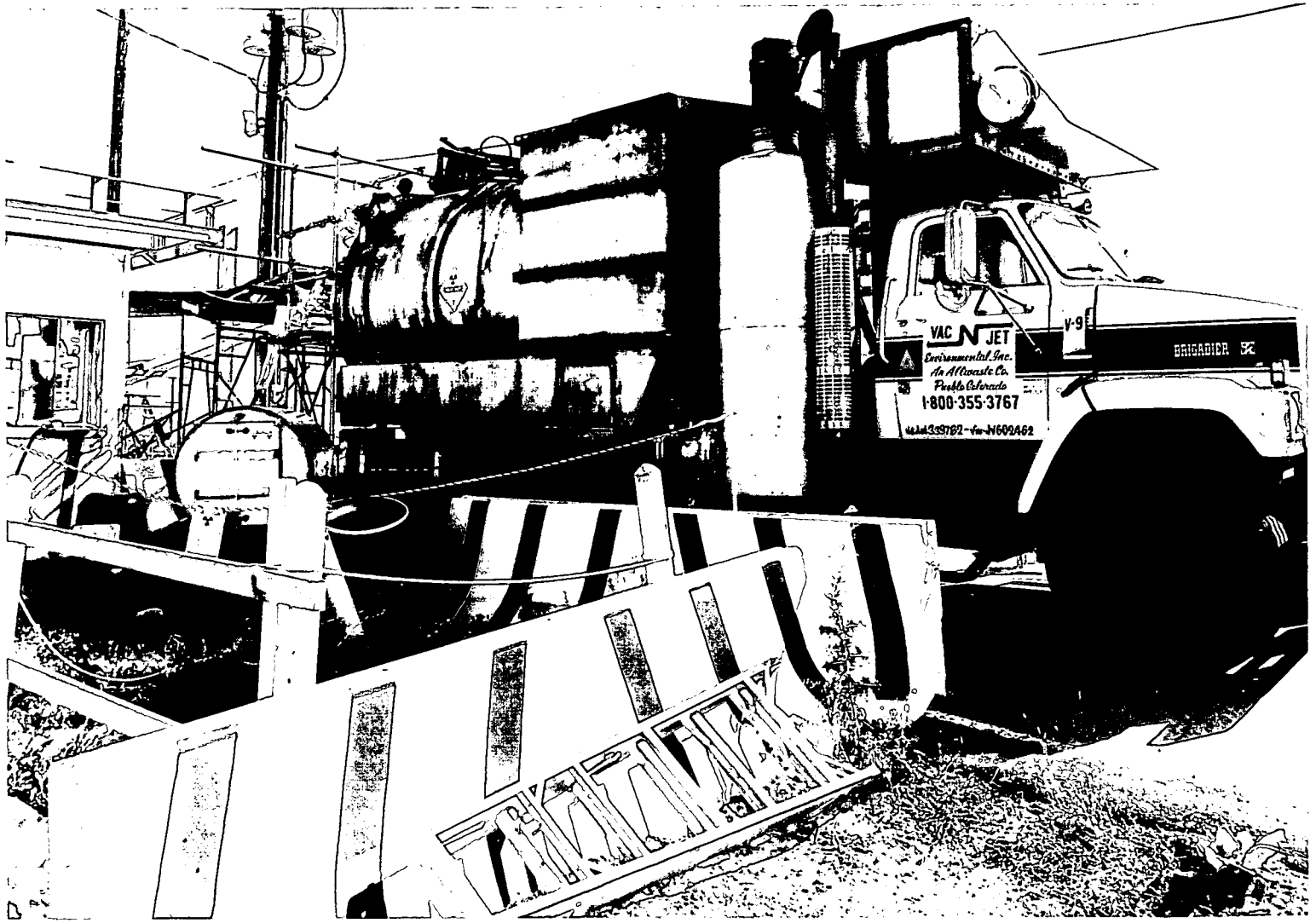

Figure 23: (during) Vacuum trucks were used to transport sludge from the solar evaporation ponds to 10,000 gallon storage tanks located at the 750 pad tent structures.

ROCKY FLATS, IN

AUG 24 1994

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RECORDER
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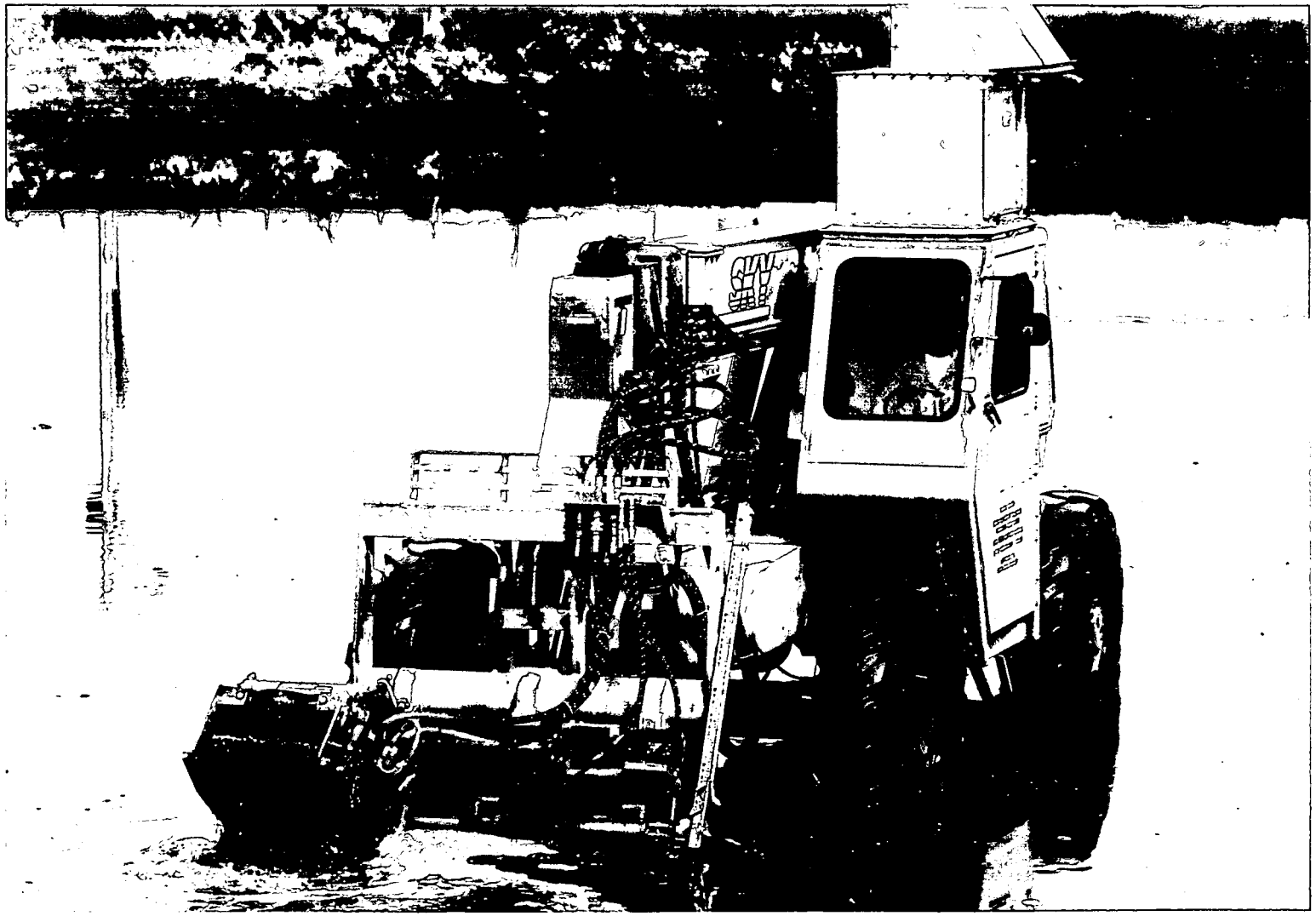

Figure 24: (during) "Saltbuster" (a four wheel drive vehicle) with rotomiller attachment was used to "slurry" sludge.

ROCKY FLATS, I

JUL 14 1994

46692-06

RECORDER
ORDER

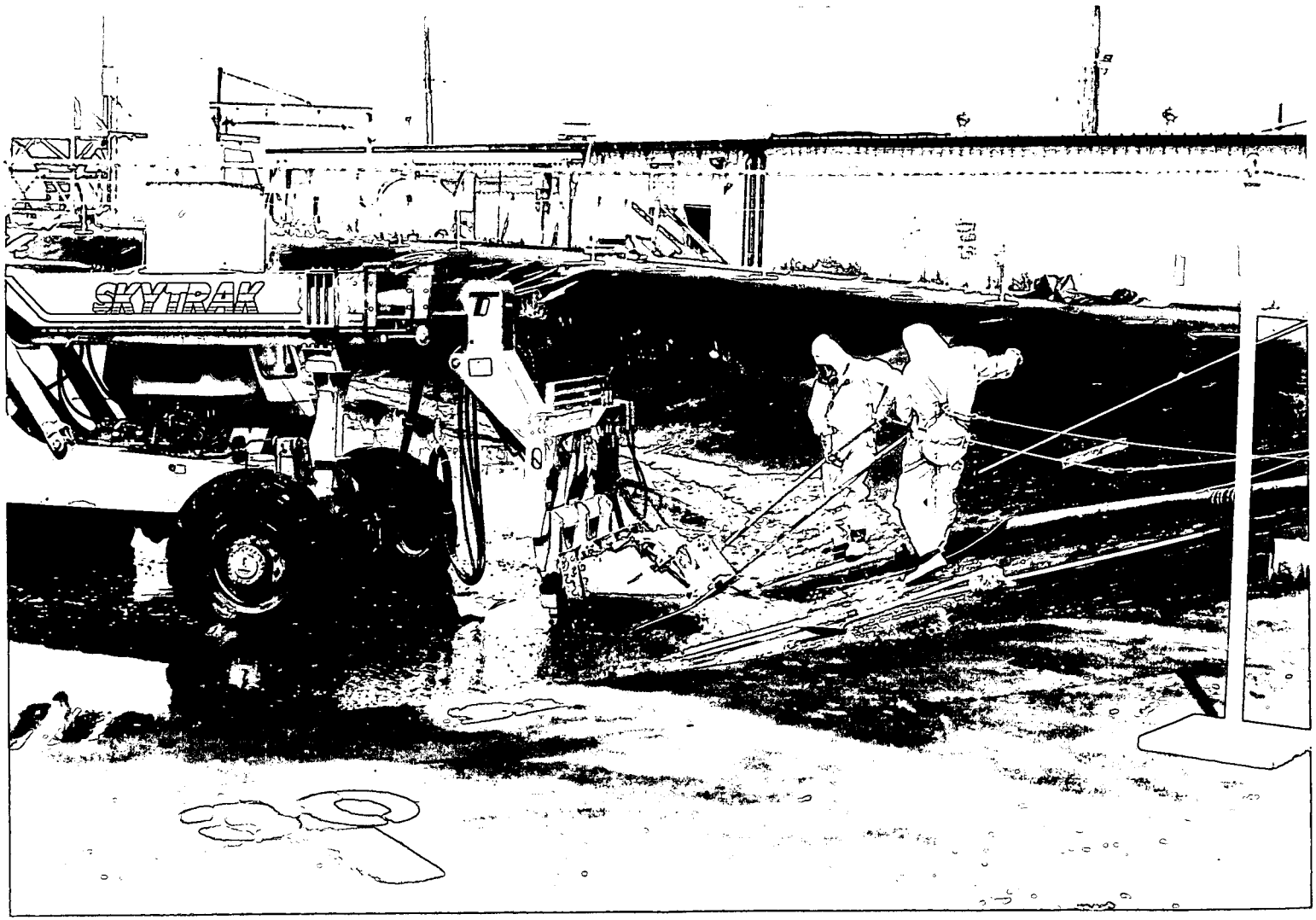

Figure 25: (during) Saltbuster pushed sludge material toward vacuum nozzle to be conveyed through over-land transfer hose to vacuum truck.

AUG 24 , 994

...EY FLATS, IL

49791-07

...RECORDER
...MBER

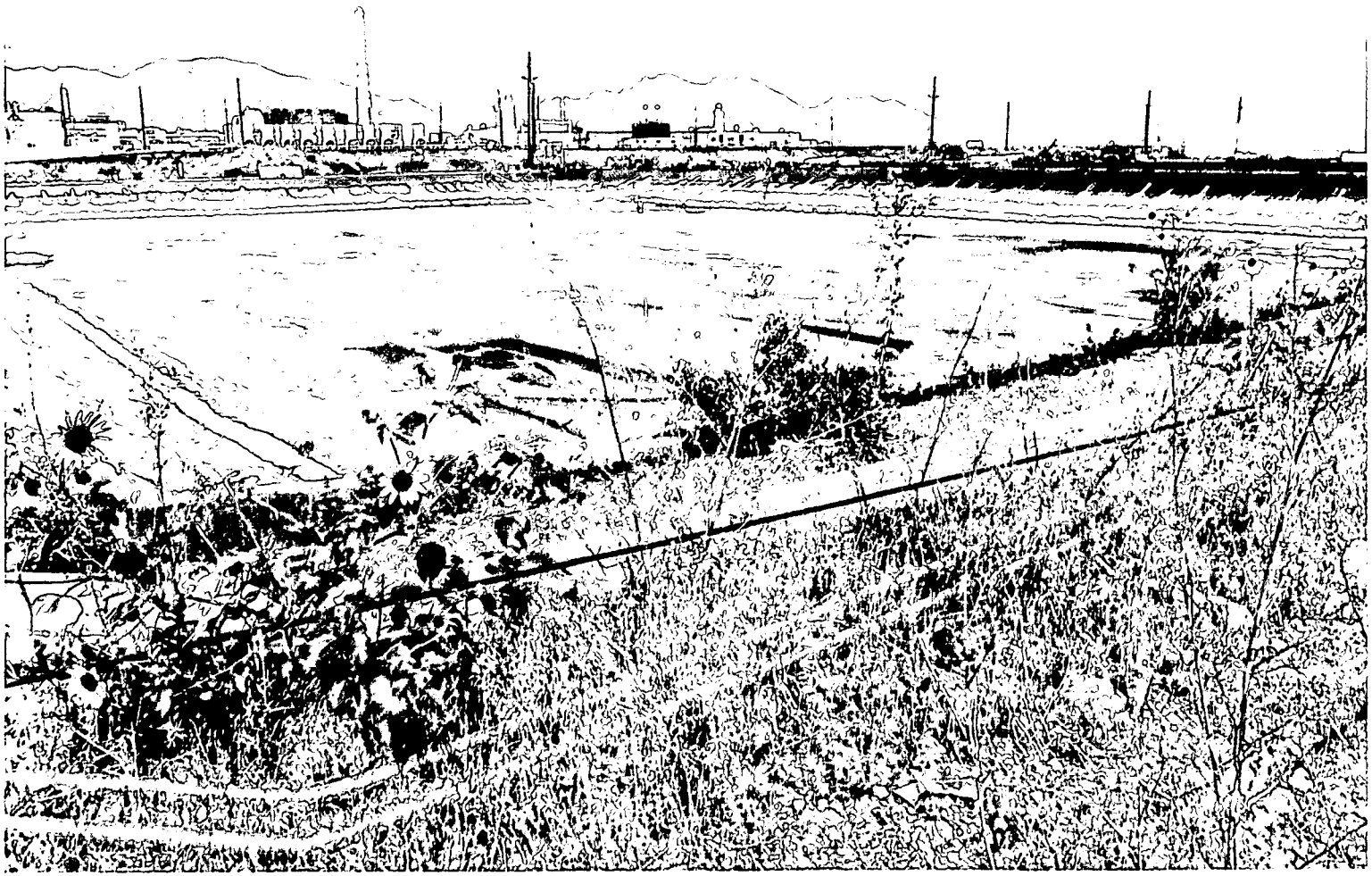

Figure 26: (after) Depicts Pond 207B south pond after sludge removal activities were completed. Picture shows synthetic liner with perimeter ballast sandbags as a hold-down for liner.

KAISER•HILL COMPANY

GLOVEBOX 90, MOD D, B707

Completed 2/95

Figure 27: (during) Picture shows dried first coat of TLC, Glovebox 90 measures approx. 15'L X 3'W X 4'H. Approx. 12 gallons of stripcoat were applied to the interior surfaces and equipment to form the first strippable layer. Build-up of the first strippable thickness, took 4 coats, over one and one half days.

FEB -8 1995

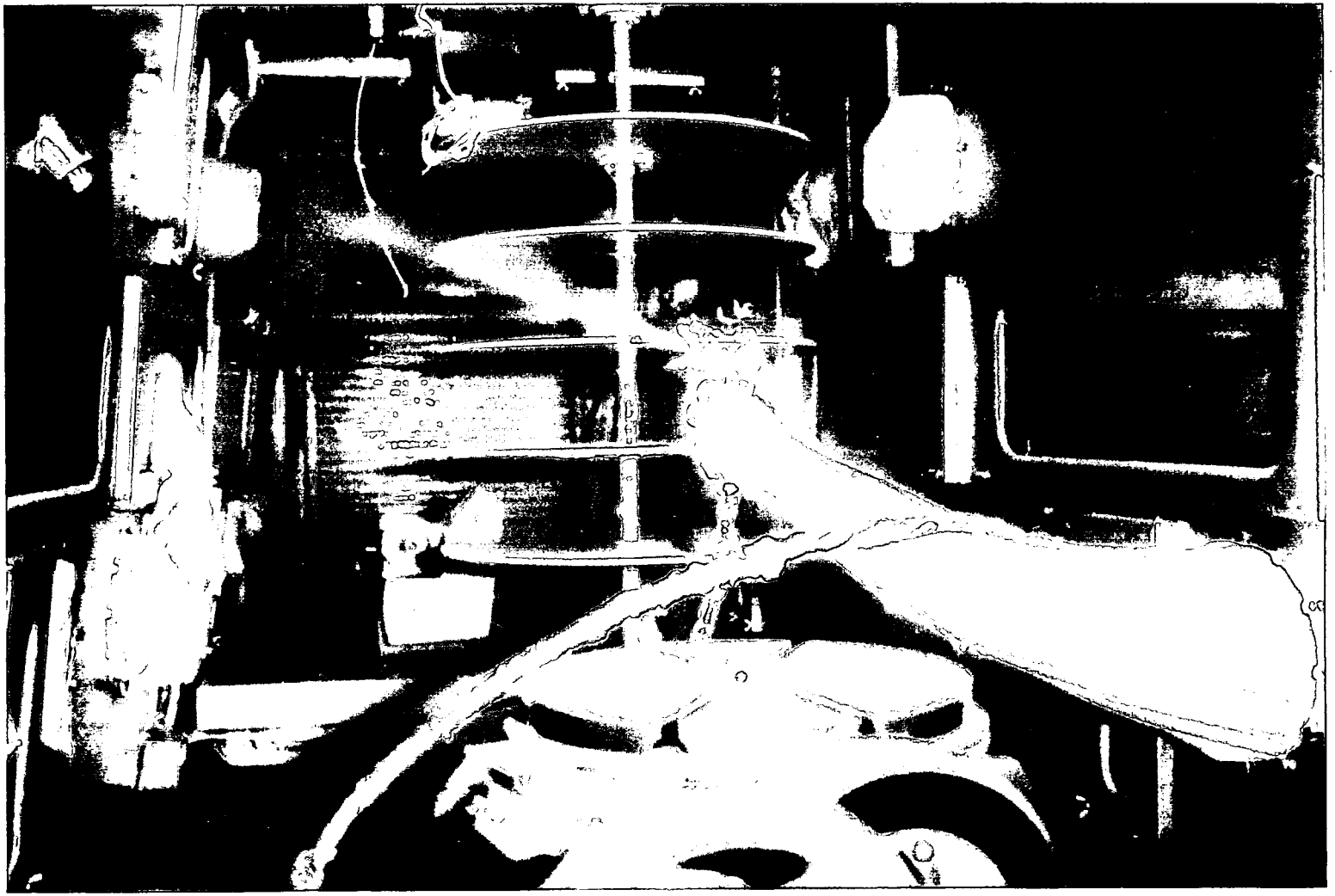

Figure 28: (during) Applying second coat of TLC, approx. 11 gallons. Application of the second coat was completed in one day. An airless sprayer was used for TLC applications, the Nova or SuperNova by Sherwin-Williams, .5 or .6 gpm throughout, an in-line filter, with a .016" to .023" diameter orifice. The .017" orifice tip was used in the evaluation after results of the mock-up testing.

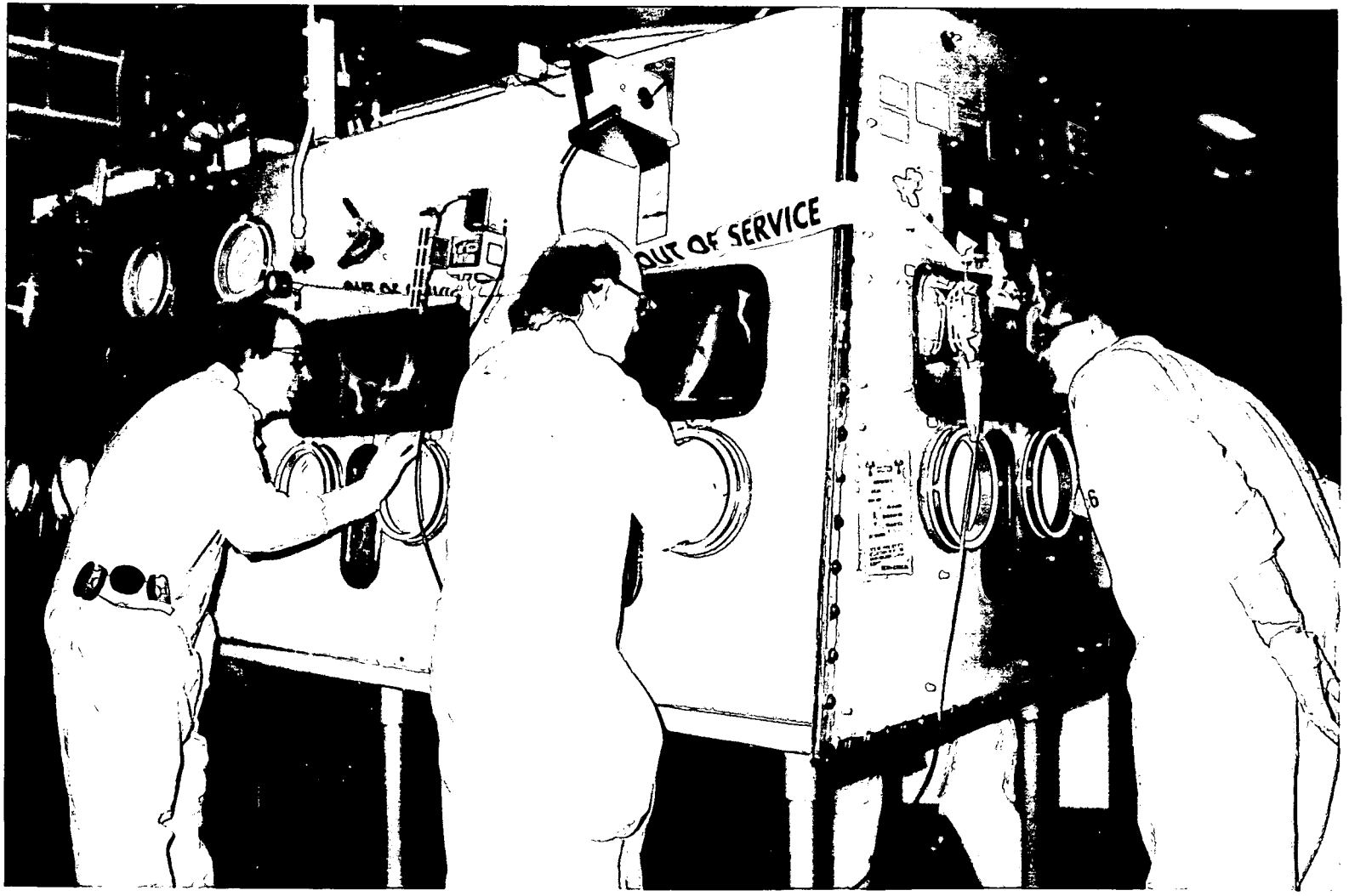

Figure 29: (during/after) Workers removing stripcoat. Significant amounts of material (powder and grease) were removed from crevices behind window frames, gasketed joints and the intricate geometry of the equipment inside of the glovebox. Removal of TLC resulted in long rope like pieces that could not be pulled apart by hand.

KAISER•HILL COMPANY

BUILDING 889 and SURROUNDING FACILITIES IN-PROGRESS D & D

55

KAISER•HILL COMPANY

BUILDING 889, D & D

1/96 - 9/96

PROJECT PURPOSE/SCOPE

To D&D Building 889 and surrounding structures, and disconnect all utilities.

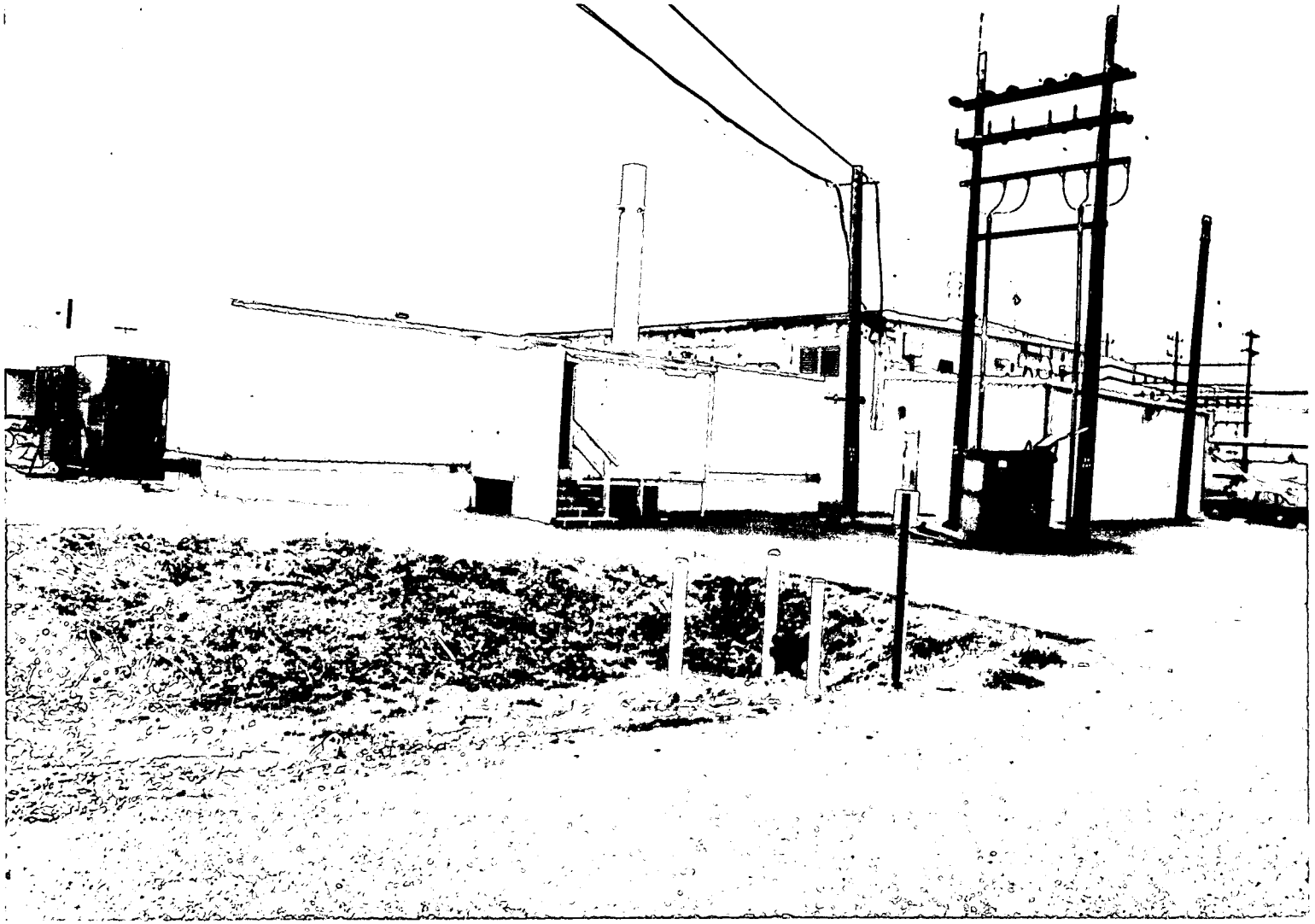

Figure 30: (before) This picture is the shower trailer that will be removed from inner plantsite to Property Utilization and Disposal (PU&D) storage site for future usage determination.

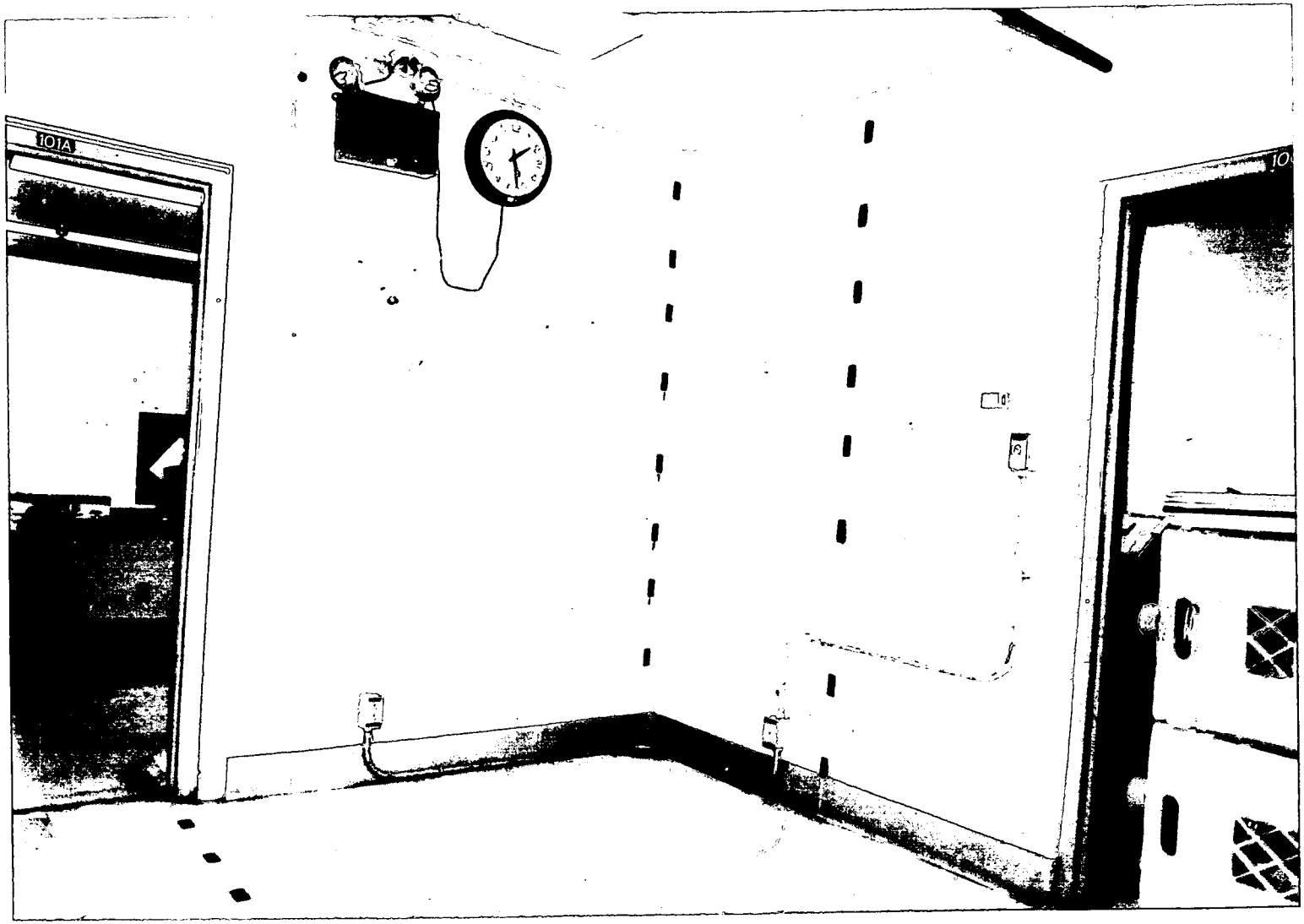

Figure 31: (before) An office area view inside of Building 889 that is gridded for hazard constituents characterization e.g., Pb, Ur, Asbestos, Be, etc. The entire building will be gridded, and samples will be taken for verification prior to demolition.

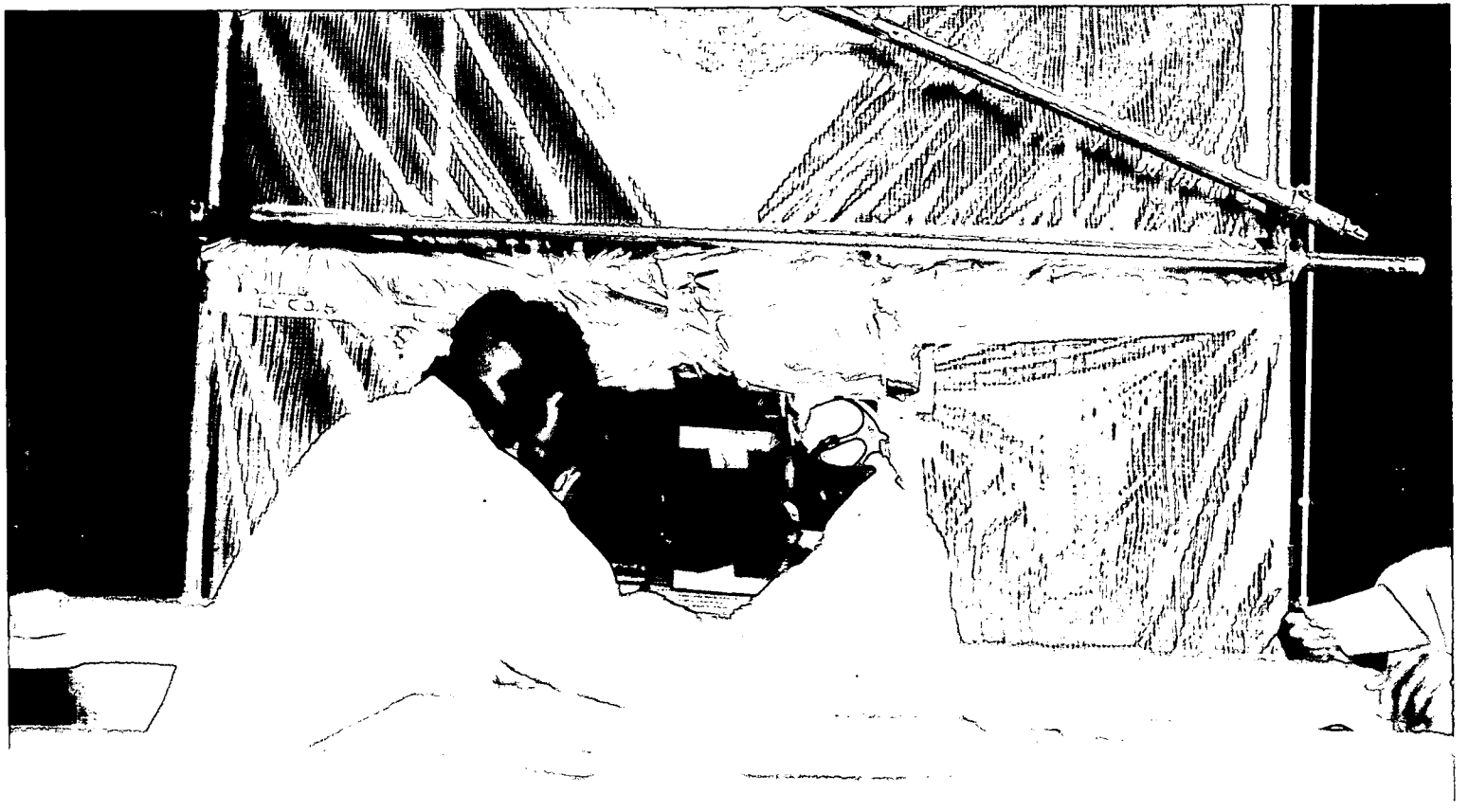

Figure 32: (during) Waste stored in and around Building 889 has to be identified, then re-packaged and put into crates.

KAISER•HILL
COMPANY

BUILDING 886
PLANNED DEACTIVATION WORK

BUILDING 886
DEACTIVATION
Planned FY 97

29

KAISER•HILL COMPANY

PROJECT PURPOSE/SCOPE

Deactivate Building 886 MAA. Remove Uranium and Plutonium holdup and stabilize Rms 101 and 103.

Figure 33: (before)Rm 103 HEUN Storage Tanks. Raschig Ring Tanks will be cleaned and closed.

JAN 15 1992

ROCKY FLATS

42868-02

RECORDS
CENTER

Figure 34: (before) Overhead of Rm 103, contaminated with Uranium.

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ROCKY FLATS P

JUN 15 1992

92868-04

ACTION
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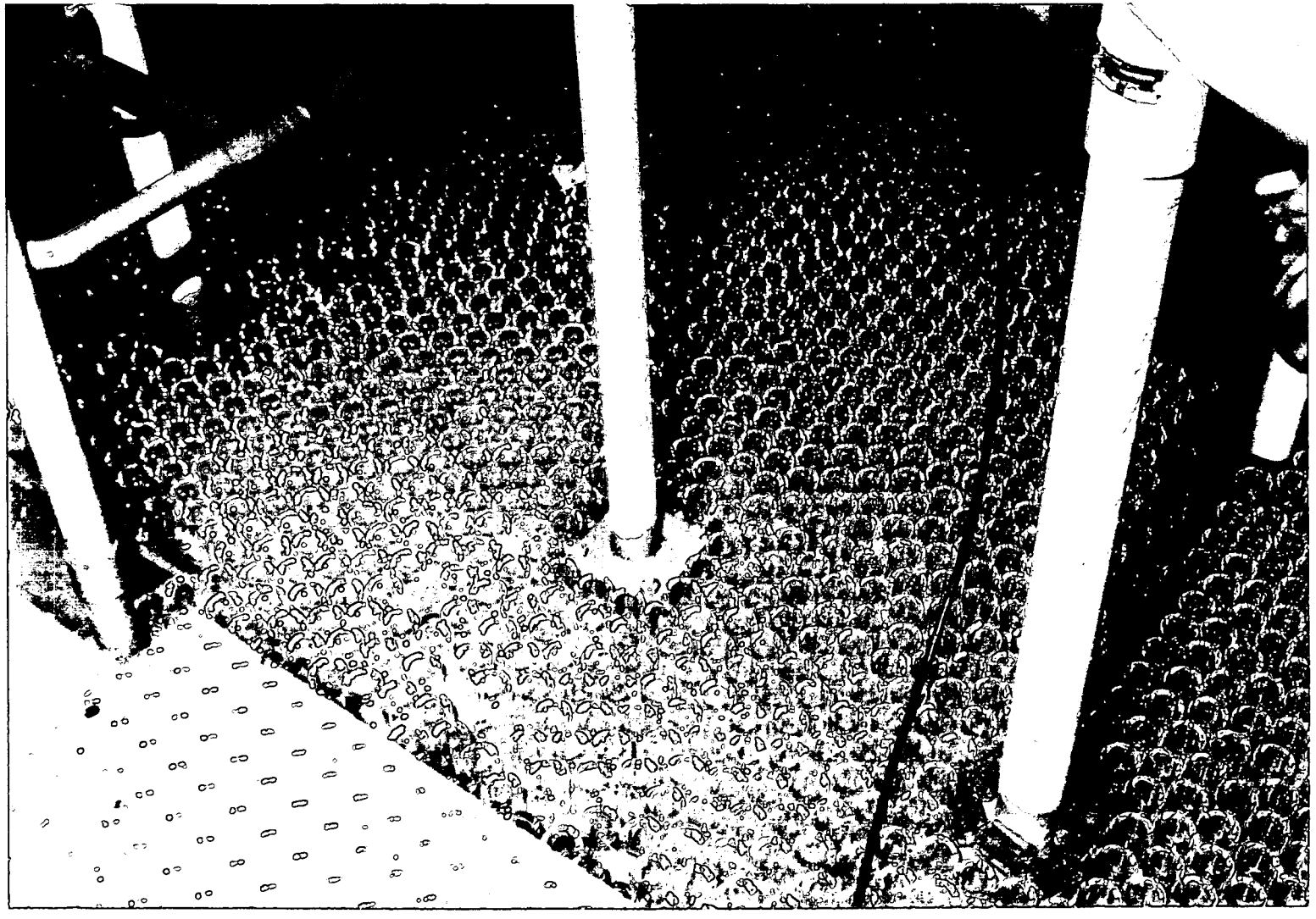

Figure 35: (before) Floor in Pit Area of Rm 103, contaminated with Uranium and trace amounts of Plutonium.

[redacted]

ROCKY FLATS

JAN 15 1992

42871-06

[illegible]

Figure 36: (before) Rm 103 mezzanine. Hood is contaminated with both Uranium and Plutonium holdup.

[redacted]

[redacted] ROCKY FLATS

JAN 15 1992

42868-07

[redacted]

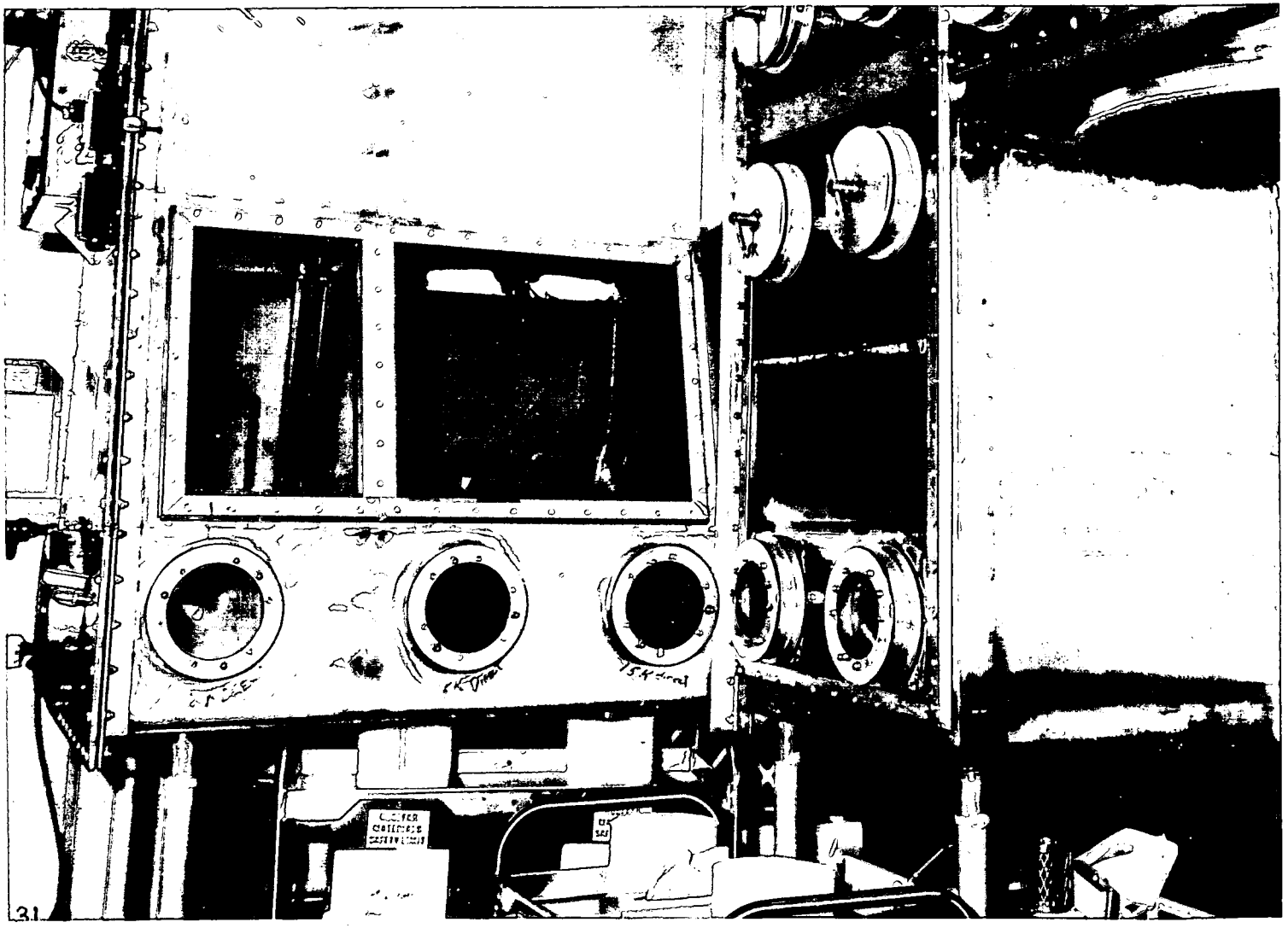

Figure 37: (before) Rm 103 Glovebox and downdraft in Rm 103 contaminated with Plutonium holdup.

[redacted]

ROCKY FLATS

JAN 15 1992

42868-08

[redacted]

SUMMARY

The Decommissioning Program at RFETS has the goal of providing the Department of Energy (DOE) with a means to plan and execute decommissioning projects by:

- Executing the decommissioning projects under a well planned program and controlling them as closely to schedule and budget as possible, and
- Maintaining a cohesive Decommissioning Program organization and routinely improving the program capabilities through execution of projects and acquisition of key resources.

The Decommissioning Program is progressing in both of these areas and has prepared the necessary planning to continue to do so. With a comprehensive decommissioning program, changes can be implemented as new federal and state regulations and DOE orders are issued. The establishment of a strong Decommissioning Program at RFETS will be a noteworthy accomplishment that will ensure timely, coordinated, and efficient decommissioning of systems and facilities at RFETS.

The current decommissioning projects under way at RFETS demonstrate how funding can be effectively used to clean up facilities that are contaminated from past activities. The Decommissioning Program has developed the infrastructure necessary to support a Decommissioning Program for FY97 and beyond. The continued funding and support for all of these activities, as well as the initiation and completion of decommissioning activities at other RFETS areas, will indeed demonstrate our pledge to maintain Kaiser-Hill's commitment to make RFETS safe for beneficial use in a manner that is environmentally and socially responsible, secure, and cost effective.